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L2

L1 and resin and polymer\$5

7

L2

L1

552/\$ and methacrylic acid ester

16

L1

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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 7 of 7 returned.**☐ 1. Document ID: US 20020128343 A1

L2: Entry 1 of 7

File: PGPB

Sep 12, 2002

PGPUB-DOCUMENT-NUMBER: 20020128343

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020128343 A1

TITLE: Colorants containing copolymerizable vinyl groups and sulfonamide linkages

PUBLICATION-DATE: September 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cyr, Michael John	Kingsport	TN	US	
Weaver, Max Allen	Kingsport	TN	US	
Rhodes, Gerry Foust	Piney Flats	TN	US	
Pearson, Jason Clay	Kingsport	TN	US	
Cook, Phillip Michael	Kingsport	TN	US	
De Wit, Jos Simon	Kingsport	TN	US	
Johnson, Larry Keith	Kingsport	TN	US	

US-CL-CURRENT: [522/96](#); [522/103](#), [522/107](#), [522/120](#), [522/167](#), [522/173](#), [522/179](#), [546/63](#), [552/208](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc	Image
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☐ 2. Document ID: US 20020002295 A1

L2: Entry 2 of 7

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020002295

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020002295 A1

TITLE: NOVEL (METH) ACRYLIC ACID ESTER COMPOUND

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
SATO, KENICHIRO	SHIZUOKA		JP	
AOAI, TOSHIAKI	SHIZUOKA		JP	

US-CL-CURRENT: [552/609](#); [552/555](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc	Image
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☐ 3. Document ID: US 4496778 A

L2: Entry 3 of 7

File: USPT

Jan 29, 1985

US-PAT-NO: 4496778

DOCUMENT-IDENTIFIER: US 4496778 A

TITLE: Process for the hydroxylation of olefins using molecular oxygen, an osmium containing catalyst, a copper Co-catalyst, and an aromatic amine based promoter

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 4. Document ID: US 4413151 A

L2: Entry 4 of 7

File: USPT

Nov 1, 1983

US-PAT-NO: 4413151

DOCUMENT-IDENTIFIER: US 4413151 A

TITLE: Process for hydroxylating olefins using a supported osmium catalyst

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 5. Document ID: US 4115413 A

L2: Entry 5 of 7

File: USPT

Sep 19, 1978

US-PAT-NO: 4115413

DOCUMENT-IDENTIFIER: US 4115413 A

TITLE: Triaryl-methane dyestuffs

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 6. Document ID: US 4088572 A

L2: Entry 6 of 7

File: USPT

May 9, 1978

US-PAT-NO: 4088572

DOCUMENT-IDENTIFIER: US 4088572 A

TITLE: Ultrafiltration purification of solution of polymeric anthraquinone colorants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 7. Document ID: US 3963498 A

L2: Entry 7 of 7

File: USPT

Jun 15, 1976

US-PAT-NO: 3963498

DOCUMENT-IDENTIFIER: US 3963498 A

TITLE: Silver halide element containing an organic semiconductor

Full Title Citation Front Review Classification Date Reference Sequences Attachments

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				COMPOSITION	TOSHIAKI
<u>08541263</u>	Not Issued	166	10/12/1995	POSITIVE TYPE PHOTOSENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>08531861</u>	<u>5523396</u>	150	09/21/1995	PROCESS FOR SYNTHESIZING QUINONEDIAZIDE ESTER UTILIZING BASE CATALYST	AOAI , TOSHIAKI
<u>08525157</u>	Not Issued	166	09/08/1995	POSITIVE-WORKING PHOTOSENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>08306329</u>	Not Issued	166	09/15/1994	POSITIVE WORKING PHOTORESIST COMPOSITION	AOAI , TOSHIAKI
<u>07647067</u>	<u>5141840</u>	150	01/29/1991	LIGHT-SENSITIVE COMPOSITION CONTAINING ONION SALT AND POLYSILOXANE REACTION PRODUCT	AOAI , TOSHIAKI
<u>07641834</u>	<u>5204217</u>	150	01/16/1991	PHOTOSENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>07412544</u>	<u>4983491</u>	150	09/22/1989	PHOTOSENSITIVE DIAZO RESIN COMPOSITION WITH POLYURETHANE RESIN HAVING CARBOXYL GROUP IN ITS MAIN CHAIN	AOAI , TOSHIAKI
<u>06625079</u>	Not Issued	166	06/27/1984	PHOTOSOLUBILIZABLE COMPOSITION WITH SILYL ETHER OR ALYL ESTER GROUP CONTAINING COMPOUND	AOAI , TOSHIAKI
<u>09422344</u>	<u>6200729</u>	150	10/21/1999	POSITIVE PHOTOSENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>07153883</u>	Not Issued	161	02/09/1988	PHOTODEGRADABLE MICROCAPSULES	AOAI , TOSHIAKI
<u>09361568</u>	<u>6291130</u>	150	07/27/1999	POSITIVE PHOTOSENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>08925760</u>	Not Issued	161	09/09/1997	POSITIVE RESIST COMPOSITION OF CHEMICAL AMPLIFICATION TYPE	AOAI , TOSHIAKI
<u>08703409</u>	Not Issued	161	08/26/1996	LIGHT-SENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>08487227</u>	Not Issued	161	06/07/1995	POSITIVE WORKING LIGHT-SENSITIVE COMPOSITION	AOAI , TOSHIAKI
<u>07614421</u>	<u>5069992</u>	150	11/16/1990	ELECTROPHOTOGRAPHIC PRINTING PLATE PRECURSOR CONTAINING ALKALI-SOLUBLE POLYURETHANE RESIN AS	AOAI , TOSHIAKI

				BINDER RESIN	
<u>07119578</u>	<u>4898803</u>	150	11/12/1987	LIGHT-SENSITIVE O-QUINONE DIAZIDE COMPOSITION WITH ACIDIC POLYURETHANE RESIN	AOAI, TOSHIAKI
<u>09577884</u>	<u>6479211</u>	150	05/25/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET EXPOSURE	AOAI, TOSHIAKI
<u>09563436</u>	Not Issued	041	05/03/2000	POSITIVE-WORKING PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>10095086</u>	Not Issued	030	03/12/2002	POSITIVE PHOTSENSITIVE COMPOSITIONS	AOAI, TOSHIAKI
<u>10109872</u>	Not Issued	030	04/01/2002	POSITIVE PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>09606681</u>	Not Issued	095	06/30/2000	POSITIVE PHOTSENSITIVE COMPOSITION	AOAI, TOSHIAKI
<u>09620708</u>	Not Issued	041	07/20/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET EXPOSURE	AOAI, TOSHIAKI
<u>08911165</u>	<u>6150068</u>	150	08/14/1997	PHOTSENSITIVE RESIN COMPOSITION FOR FAR-ULTRAVIOLET EXPOSURE	AOAI, TOSHIAKI
<u>10099981</u>	Not Issued	030	03/19/2002	POSITIVE RESIST COMPOSITION	AOAI, TOSHIAKI
<u>10116137</u>	Not Issued	030	04/05/2002	POSITIVE PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>09669907</u>	<u>6410204</u>	150	09/27/2000	POSITIVE PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>09684888</u>	Not Issued	071	10/06/2000	POSITIVE-WORKING RESIST COMPOSITION	AOAI, TOSHIAKI
<u>09729953</u>	Not Issued	140	12/06/2000	POSITIVE TYPE PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>09921691</u>	<u>6492091</u>	150	08/06/2001	POSITIVE PHOTSENSITIVE COMPOSITION	AOAI, TOSHIAKI
<u>09961281</u>	Not Issued	030	09/25/2001	POSITIVE RESIST COMPOSITION	AOAI, TOSHIAKI
<u>09978103</u>	Not Issued	041	10/17/2001	POSITIVE PHOTSENSITIVE COMPOSITION	AOAI, TOSHIAKI
<u>09492848</u>	Not Issued	093	01/27/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET RAY EXPOSURE	AOAI, TOSHIAKI
<u>09497281</u>	<u>6416925</u>	150	02/02/2000	POSITIVE WORKING PHOTSENSITIVE COMPOSITION	AOAI, TOSHIAKI

<u>09759362</u>	Not Issued	071	01/16/2001	ELECTRON BEAM OR X-RAY NEGATIVE-WORKING RESIST COMPOSITION	AOAI, TOSHIAKI
<u>09769375</u>	<u>6485883</u>	150	01/26/2001	POSITIVE PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>09541597</u>	Not Issued	120	04/03/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET EXPOSURE	AOAI, TOSHIAKI
<u>09834639</u>	Not Issued	041	04/16/2001	POSITIVE PHOTORESIST COMPOSITION	AOAI, TOSHIAKI
<u>10022363</u>	Not Issued	071	12/20/2001	POSITIVE-WORKING RESIST COMPOSITION	AOAI, TOSHIAKI
<u>10062497</u>	Not Issued	030	02/05/2002	POSITIVE RESIST COMPOSITION	AOAI, TOSHIAKI

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aoai

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toshiaki

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				COMPOSITON	
<u>09023801</u>	<u>6214517</u>	150	02/12/1998	POSITIVE TYPE PHOTORESIST COMPOSITION	SATO , KENICHIRO
<u>08404985</u>	<u>5529881</u>	150	03/16/1995	POSITIVE PHOTORESIST COMPOSITION	SATO , KENICHIRO
<u>09456827</u>	Not Issued	041	12/06/1999	POSITIVE PHOTORESIST COMPOSITION	SATO , KENICHIRO
<u>08362924</u>	Not Issued	166	12/23/1994	RADIATION RAY SENSITIVE RESIN COMPOSITION	SATO , KENICHIRO
<u>09392588</u>	Not Issued	061	09/09/1999	POSITIVE RESIST COMPOSITION	SATO , KENICHIRO
<u>08531861</u>	<u>5523396</u>	150	09/21/1995	PROCESS FOR SYNTHESIZING QUINONEDIAZIDE ESTER UTILIZING BASE CATALYST	SATO , KENICHIRO
<u>08531081</u>	<u>5629128</u>	150	09/20/1995	POSITIVE PHOTORESIST COMPOSITION	SATO , KENICHIRO
<u>09361568</u>	<u>6291130</u>	150	07/27/1999	POSITIVE PHOTSENSITIVE COMPOSITION	SATO , KENICHIRO
<u>09577884</u>	<u>6479211</u>	150	05/25/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET EXPOSURE	SATO, KENICHIRO
<u>09563436</u>	Not Issued	041	05/03/2000	POSITIVE-WORKING PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>10079414</u>	Not Issued	030	02/22/2002	POSITIVE PHOTSENSITIVE COMPOSITION	SATO, KENICHIRO
<u>10093411</u>	Not Issued	030	03/11/2002	POSITIVE-WORKING RESIST COMPOSITION	SATO, KENICHIRO
<u>10109872</u>	Not Issued	030	04/01/2002	POSITIVE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09606681</u>	Not Issued	095	06/30/2000	POSITIVE PHOTSENSITIVE COMPOSITION	SATO, KENICHIRO
<u>09620708</u>	Not Issued	041	07/20/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET EXPOSURE	SATO, KENICHIRO
<u>09880030</u>	Not Issued	041	06/14/2001	POSITIVE RESIST LAMINATE	SATO, KENICHIRO
<u>10114985</u>	Not Issued	030	04/04/2002	POSITIVE RESIST COMPOSITION	SATO, KENICHIRO
<u>10116137</u>	Not Issued	030	04/05/2002	POSITIVE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09438789</u>	<u>6420082</u>	150	11/12/1999	POSITIVE RESIST FLUID AND	SATO,

				POSITIVE RESIST COMPOSITION	KENICHIRO
<u>09669907</u>	<u>6410204</u>	150	09/27/2000	POSITIVE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09684888</u>	Not Issued	071	10/06/2000	POSITIVE-WORKING RESIST COMPOSITION	SATO, KENICHIRO
<u>09729953</u>	Not Issued	140	12/06/2000	POSITIVE TYPE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09698221</u>	<u>6506535</u>	150	10/30/2000	POSITIVE WORKING PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09698190</u>	Not Issued	071	10/30/2000	POSITIVE-WORKING PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09960343</u>	Not Issued	030	09/24/2001	POSITIVE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>10146896</u>	Not Issued	030	05/17/2002	POSITIVE RESIST COMPOSITION	SATO, KENICHIRO
<u>10150967</u>	Not Issued	030	05/21/2002	POSITIVE PHOTSENSITIVE COMPOSITION	SATO, KENICHIRO
<u>10165976</u>	Not Issued	030	06/11/2002	POSITIVE RESIST COMPOSITION	SATO, KENICHIRO
<u>09492848</u>	Not Issued	093	01/27/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET RAY EXPOSURE	SATO, KENICHIRO
<u>09497281</u>	<u>6416925</u>	150	02/02/2000	POSITIVE WORKING PHOTSENSITIVE COMPOSITION	SATO, KENICHIRO
<u>09541597</u>	Not Issued	120	04/03/2000	POSITIVE PHOTORESIST COMPOSITION FOR FAR ULTRAVIOLET EXPOSURE	SATO, KENICHIRO
<u>09789823</u>	Not Issued	094	02/22/2001	POSITIVE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09834639</u>	Not Issued	041	04/16/2001	POSITIVE PHOTORESIST COMPOSITION	SATO, KENICHIRO
<u>09856046</u>	<u>6490509</u>	150	05/17/2001	CAR CONTROLLING UNIT USING A MULTITASKING SYSTEM	SATO, KENICHIRO
<u>10043135</u>	Not Issued	030	01/14/2002	POSITIVE IMAGE-FORMING MATERIAL	SATO, KENICHIRO
<u>10022363</u>	Not Issued	071	12/20/2001	POSITIVE-WORKING RESIST COMPOSITION	SATO, KENICHIRO
<u>10176067</u>	Not Issued	020	06/21/2002	POSITIVE PHOTSENSITIVE COMPOSITION	SATO, KENICHIRO

<u>10253484</u>	Not Issued	020	09/25/2002	POSITIVE RESIST COMPOSITION	SATO, KENICHIRO
<u>08306329</u>	Not Issued	166	09/15/1994	POSITIVE WORKING PHOTORESIST COMPOSITION	SATOH , KENICHIRO

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sato

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kenichiro

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59 ANSWERS

L4 59 SEA SSS FUL L1

L5 23 L4

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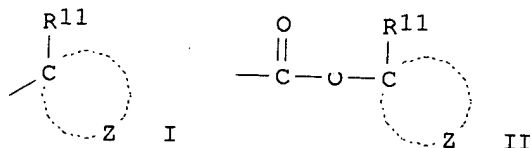
L5 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:133886 CAPLUS
DOCUMENT NUMBER: 134:200519
TITLE: Method for positive-working resist pattern formation
using ArF excimer laser
INVENTOR(S): Nakao, Hajime; Sato, Kenichiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 89 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001051421	A2	20010223	JP 1999-228617	19990812
AB	The title method includes the steps of coating a resist compn. contg. a resin, which increasing the soly. in an alkali by reacting with an acid, and developing a pattern in an org. alkali soln. in the presence of a surfactant. The acid sensitive resin has aliph. poly-alicyclic structure. The method including the acid-sensitive resin and the developing soln. including a surfactant provides the even characteristics between a complicated pattern area and an isolated pattern area.				

L5 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:357220 CAPLUS
DOCUMENT NUMBER: 133:11015
TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000147775	A2	20000526	JP 1998-327052	19981117

GI



AB The title photoresist compn. contains (a) a compd. that generates an acid by irradiation with activating ray or radiation and (b) a resin contg. a repeating unit having alkali-sol. groups protected with .gtoreq.1 group selected from I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II [R11 = Me, Et, n- or iso-Pr, n-, iso- or sec-Bu;

Z = atoms required to form an alicyclic hydrocarbon group along with the

C atom; R12-16, R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or 1 of R15 and R16 is an alicyclic hydrocarbon group, .gtoreq.1 of R22-25 is an alicyclic hydrocarbon group; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is an alicyclic hydrocarbon group, R19 or R21 is a C1-4 straight-chain or branched alkyl or cyclic hydrocarbon group] and another repeating unit CR1R3CR2R4 [R1-4 = H, halo, C1-4 straight-chain or branched alkyl, .gtoreq.1 of R1-4 is CO2RnARmCO2H; R is a combination of .gtoreq.1 group selected from single bond, (substituted) alkylene, ether, thioether, carbonyl, and ester; A = alicyclic hydrocarbon; m, n = 0 or 1],

which is cleaved by the action of acid to increase the soly. to alkali. The compn. shows improved suitability to the std. developing soln. and high sensitivity in the wavelength region of 170-220 nm and provides high resolu. resist patterns with improved dense and coarse dependence.

L5 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:223738 CAPLUS

DOCUMENT NUMBER: 132:258166

TITLE: ArF excimer laser-sensitive positive-working photoresist composition

INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

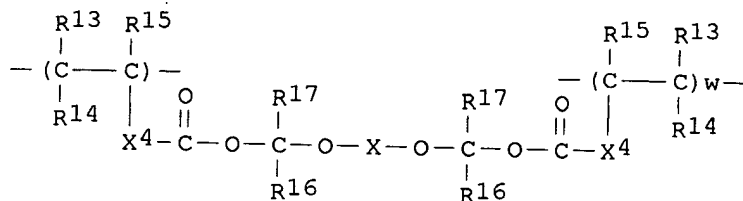
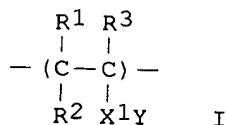
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000098613	A2	20000407	JP 1998-270041	19980924

GI



II

AB The ArF excimer laser-sensitive pos.-working photoresist compn. has an active-ray or radiation-sensitive acid-generating compd., a resin, which increases the soly. in an alkali developer after reacting with an acid, having repeating unit I and II (R¹, R³, R¹³, R¹⁵ = H, halo, cyano, alkyl, haloalkyl; R², R¹⁴ = H, cyano, -COOR¹⁸, -CON(R¹⁹)(R²⁰); X¹, X⁴ = single bond, divalent alkylene, alkenylene, cycloalkylene, etc.; R¹⁶, R¹⁷ = H, alkyl, cycloalkyl; X = divalent alkylene, alkenylene, cycloalkylene, etc.; Y = aliph. ring residue; R¹⁸ = H, alkyl, cycloalkyl, alkenyl; R¹⁹, R²⁰, R²³ = H, alkyl, cycloalkyl, alkenyl, etc.; R²¹, R²², R²⁴ = single bond, ether, ester, amino, etc.). The compn. provides the excellent sensitivity, resoln., dry-etching resistance.

L5 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2000:67678 CAPLUS
 DOCUMENT NUMBER: 132:130026
 TITLE: Positive-working resist composition suited for use in deep UV ray exposure
 INVENTOR(S): Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000029219	A2	20000128	JP 1998-197730	19980713

AB The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO₂H groups, (c) a compd. having .gtoreq.2 groups CR¹R²C:CR³Z [R¹-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2 of R¹³ may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO₂, NH], (d) a cyclic aliph. org. carboxylic acid with mol. wt. .ltoreq.1000 and/or a naphthalene ring-contg. org. carboxylic acid, (e) a N-contg. basic compd., and (f) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a resoln. pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.

L5 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2000:67677 CAPLUS
 DOCUMENT NUMBER: 132:130025
 TITLE: Positive-working resist composition suited for use in

INVENTOR(S): deep ultraviolet ray exposure
PATENT ASSIGNEE(S): Aogo, Toshiaki
SOURCE: Fuji Photo Film Co., Ltd., Japan
Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000029218	A2	20000128	JP 1998-197729	19980713
AB	The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO ₂ H groups, (c) a compd. having .gtoreq.2 groups CR1R2C:CR3Z [R1-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2				
of	R13 may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO ₂ , NH], (d) a N-contg. basic compd., and (e) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.				

L5 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:67675 CAPLUS
DOCUMENT NUMBER: 132:130024
TITLE: Positive-working resist composition suited for use in deep ultraviolet ray exposure
INVENTOR(S): Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000029216	A2	20000128	JP 1998-194566	19980709
AB	The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO ₂ H groups, (c) a compd. having .gtoreq.2 groups CR1R2C:CR3Z [R1-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2				
of	R1-3 may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO ₂ , NH], (d) a compd. having a N-contg. basic group and acidic group in its mol., and (e) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a resolu. pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.				

L5 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:48990 CAPLUS
DOCUMENT NUMBER: 132:100459
TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
INVENTOR(S): Sato, Kenichiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 102 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000019737	A2	20000121	JP 1998-187597	19980702
AB	The title photoresist compn. contains a compd. generating an acid upon active ray or radiation irradiation and a resin having a group XR (X = R1, SR1, OR1, NHR1, NR2R1; R = alkoxy, OH, CO2R2, CONHR2, CONHSO2R2, CONH2;				
R1	= C1-20 divalent hydrocarbon; R2 = alkyl) in .gtoreq.1 of the termini of the mol. chain, which is decompd. by the action of acid to increase the soly. in alkali developing solns. The compn. shows high sensitivity toward light with wavelength .ltoreq.250 nm, esp. .ltoreq.220 nm and provides a high resolu. resist pattern with good profile, and the soln. of the compn. in org. solvents exhibits high storage stability.				

L5 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:32497 CAPLUS

DOCUMENT NUMBER: 132:100449

TITLE: Positively working photoresist composition for far-ultraviolet exposure

INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki; Kawabe, Yasumasa

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 122 pp.
CODEN: JKXXAF

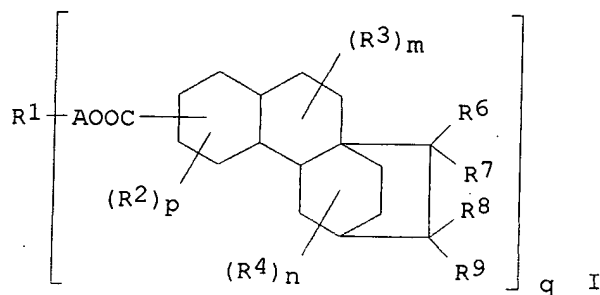
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000010285	A2	20000114	JP 1998-173379	19980619
OTHER SOURCE(S):	MARPAT 132:100449				
GI					



AB The compn. contains (A) an acid-decomposable resin to increase soly. in alkali compds., (B) an acid generator by radiation of an active energy beam or radial rays, and (C) a polycyclic aliph. compd. I [R1 = 2-6-valent linkage group; R2-4 = (substituted) hydrocarbon, alkoxy, halo, OH, amino, CO2R0, CO2R5, NHCOR5, NHSO2R5; R5 = (substituted) hydrocarbon; R0 = acid-decomposable group-forming moiety; R6-9 =H, (substituted) hydrocarbon, halo, cyano, CO2R0, CO2R5, COXAR10; X = O, S, NH, NHSO2, NHSO2NH; A = none, divalent org. linkage group; R10 = (substituted) hydrocarbon, lactone, OH, alkoxy, CO2H, cyano; a = 2-6; l, n = 0-6; m = 0-4]. The compn. is highly sensitive to 170-220-nm light to give crack-free resist patterns.

L5 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:752380 CAPLUS
 DOCUMENT NUMBER: 132:17146
 TITLE: Far-UV-sensitive positive-working photoresist composition having functionalized acrylate polymer
 INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 87 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11327148	A2	19991126	JP 1999-66682	19990312
PRIORITY APPLN. INFO.: GI			JP 1998-61478	19980312

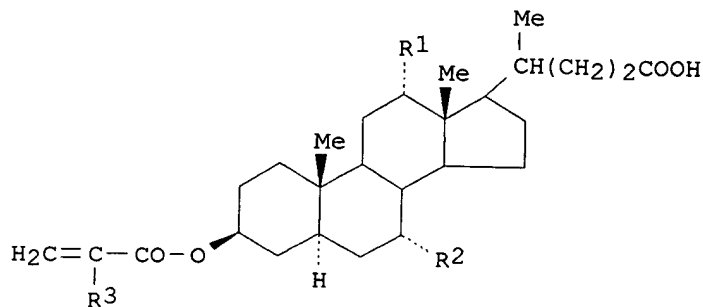
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The far-UV-sensitive pos.-working photoresist compn. has (A) an active-ray sensitive acid-generating compd., (B) a resin contg. a monovalent polycyclic aliph. ring group I (R1-3 = alkyl, cycloalkyl, alkenyl, etc.; m2, m, n = 0, 1-5 integer) and an acid-sensitive alkali-soly. increasing group, and a compd. II (X = O, S, N(R53)-; R51-53 = H, alkyl; R' = acid-sensitive group; R = bridged hydrocarbon, naphthalene ring; n1 = 1-4 integer; q1 = 0-10 integer) or III (R60 = H, alkyl; R61 = acid-sensitive group; m1, p1 = 1-4 integer). The photoresist compn. provides the excellent sensitivity, the high resoln., and the excellent pattern characteristics.

L5 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:646901 CAPLUS
 DOCUMENT NUMBER: 131:272319
 TITLE: (meth)acrylate esters for polymers with controlled molecular weight
 INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11279118	A2	19991012	JP 1998-79454	19980326
OTHER SOURCE(S): GI		MARPAT 131:272319		



AB The esters, useful for photosensitive materials, are alicyclic compds. I (R1, R2 = H, OH; R3 = H, Me). Thus, 70 g deoxycholic acid was treated with EtOCH2Cl, further treated with 33 g methacrylic acid in the presence of di-Et azodicarboxylate, and hydrolyzed with HCl to give 45 g I (R1 = OH; R2 = H; R3 = Me) with m.p. 192-193.degree..

L5 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:610661 CAPLUS

DOCUMENT NUMBER: 131:250429

TITLE: Negative-working resist composition containing cyclic imide compound and polymer having alicyclic group

INVENTOR(S): Seigo, Toshiaki; Kondo, Shunichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11258801	A2	19990924	JP 1998-65598	19980316

AB The title resist compn. contains a compd. generating an acid upon activating ray or radiation irradiation, a resin having polycyclic alicyclic and OH groups, and a cyclic imide compd. The compn. shows high sensitivity toward far UV rays in the region of .ltoreq.220 nm and storage stability and provides a high resolution pattern with good dry etch resistance.

L5 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:610643 CAPLUS

DOCUMENT NUMBER: 131:250421

TITLE: Positive-working photosensitive composition for exposure to far ultraviolet ray

INVENTOR(S): Sato, Kenichiro; Seigo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

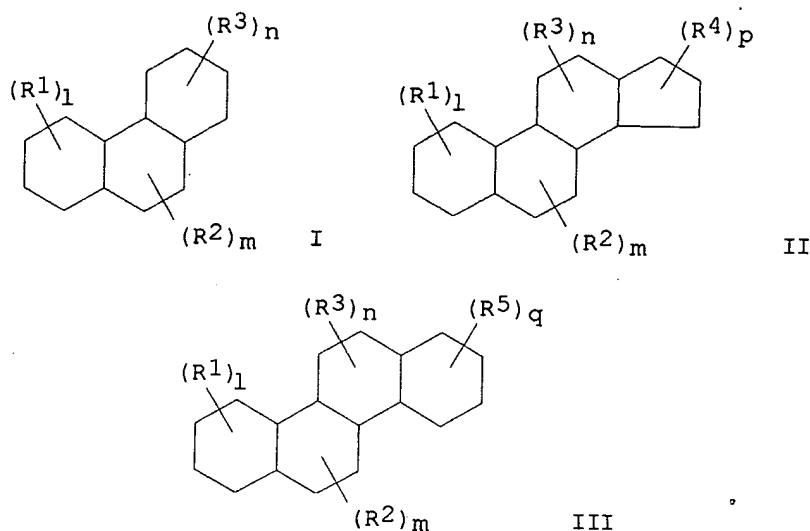
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11258782	A2	19990924	JP 1998-61449	19980312

GI



AB The title compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having at least one monovalent polyalicyclic group I, II or III (R1-5 = alkyl, cycloalkyl, alkenyl, acyloxy, alkynyl, halo, cyano, R6OR7, R8CO2R9, R10CONR11R12, R13OCOR14, R15COX1A1R16, R15COX1A2R17, R15CONHSO2X2AR17, CO2Z, etc.) and groups which are decomposed by the action of acid to increase the solubility in alkali developing solutions, and (c) a low-molecular-weight compound having hydrophilic functional groups and C5-30 bridge-containing hydrocarbon groups or a C10-30 naphthalene compound having hydrophilic functional groups as dissolution accelerator. The compound shows high sensitivity under light in the region of at least 250 nm, especially at least 220 nm, and developability and provides a high resolution resist pattern with good profile and adhesion to semiconductor substrate, etc.

L5 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1999:572384 CAPLUS
 DOCUMENT NUMBER: 131:358106
 TITLE: Structural design of new alicyclic acrylate polymers with androstane moiety for 193-nm resist
 AUTHOR(S): Aoai, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro; Kawabe, Yasumasa; Nakao, Hajime; Yagihara, Morio
 CORPORATE SOURCE: Yoshida-Minami Res. Lab., Fuji Photo Film Co., Ltd., Haibara-Gun Shizuoka, Japan
 SOURCE: Proc. SPIE-Int. Soc. Opt. Eng. (1999), 3678(Pt. 1, Advances in Resist Technology and Processing XVI), 283-294
 CODEN: PSISDG; ISSN: 0277-786X
 PUBLISHER: SPIE-The International Society for Optical Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Synthesis of new alicyclic (meth)acrylate polymers containing androstane moieties, especially cholic acid derivatives, and their characteristics were investigated for 193 nm single layer resists. Among the derivatives, a work of adhesion, Ohnishi and ring parameters were used as measures for the adhesion and the dry-etching resistance in this study. In the synthesis of the polymers, the use of 3- (beta) -methacryloyloxy-deoxycholic acid, which is the inverse configuration against the original 3-(alpha) -structure, was effective as a monomer, because the steric hindrance at

3-

(alpha) -position degraded its polymerizability. The polymers partially protected by acid labile groups showed a satisfactory adhesion, which was

probably due to the hydrophilic hydroxyl group at the 12-position and the carboxyl group linked at the 17-position, and a good dry-etching resistance. On the lithog. imaging with these polymers, the redn. of the side reaction on the acid decompn. and also the control of the flexibility

on the polymers largely affected their performance. The adjustment of the

Tg values of the polymers by the co-polymer and the change of the polymer backbone from the methacrylate to acrylate structure performed well on imaging under 193 nm exposure.

REFERENCE COUNT: 14

- REFERENCE(S):
- (1) Allen, R; J Photopolym Sci Tech 1995, V8, P623 CAPLUS
 - (2) Gokan, H; J Electrochem Soc 1983, V130, P143 CAPLUS
 - (3) Houlihan, F; Proc of SPIE 1997, V3049, P84 CAPLUS
 - (4) Iwasa, S; Proc of SPIE 1997, V3049, P126 CAPLUS
 - (5) Kaimoto, Y; Proc of SPIE 1992, V1672, P66 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:545224 CAPLUS

DOCUMENT NUMBER: 131:206960

TITLE: Positive-type far-UV-sensitive resist composition

INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

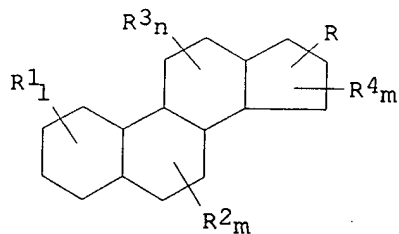
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11231538	A2	19990827	JP 1998-33206	19980216

GI



I

AB The pos.-type far-UV-sensitive resist compn. has an acid-generating compd.

and a resin having mono valent group I (R¹-4 = alkyl, cycloalkyl, halo, cyano, etc.; R = carbonyl deriv. connected with alkylene or cycloalkylene)

and a group increasing the soly. in an alkali developing soln. by reacting

with an acid. The resist compn. provides the excellent characteristics in

the development and in the contact with a substrate.

L5 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:491296 CAPLUS

DOCUMENT NUMBER: 131:116397

TITLE: Preparation of new monomers and polymers for the preparation of photoresists
 INVENTOR(S): Jung, Min Ho
 PATENT ASSIGNEE(S): Hyundai Electronics Industries Co., Ltd., S. Korea
 SOURCE: Ger. Offen., 16 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19860782	A1	19990729	DE 1998-19860782	19981230
JP 11279227	A2	19991012	JP 1998-374660	19981228
US 6132936	A	20001017	US 1998-223095	19981230
CN 1232826	A	19991027	CN 1998-126084	19981231
			KR 1997-81391	19971231

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 131:116397
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Compds. I [R1 = H, (un)substituted straight or branched alkyl, cycloalkyl, alkoxyalkyl, cycloalkoxyalkyl; R2 = H, Me] are useful as monomers for the prepn. of photoresists. Thus, 5.beta.-cholan-24-oic acid is acylated with methacryloyl chloride and esterified by the sequential treatment of SOCl2 in THF followed by addn. of tert-butanol to give I (R1 = CMe3, R2 = Me). I (R1 = CMe3, R2 = Me) is copolymd. with I (R1 = H, R2 = Me) and the copolymer II (R3, R4 = H, Me; x, y = 0.05 - 0.9 mol fraction) is then treated with triphenylsulfonium triflate in Me 3-methoxypropionate to make the photoresist.

L5 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:467455 CAPLUS

DOCUMENT NUMBER: 131:243955

TITLE: Design and synthesis of new alicyclic acrylate polymer

AUTHOR(S): with androstane moiety for 193 nm resist
 Aoi, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro;
 Kawabe, Yasumasa; Nakao, Hajime; Yagihara, Morio
 CORPORATE SOURCE: Yoshida-Minami Research Lab., Fuji Photo Film Co., Ltd., Shizuoka, 421-03, Japan
 SOURCE: J. Photopolym. Sci. Technol. (1999), 12(3), 477-486
 CODEN: JSTEEW; ISSN: 0914-9244
 PUBLISHER: Technical Association of Photopolymers, Japan
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Syntheses of new alicyclic (meth)acrylate polymers contg. androstane moieties, esp. cholic acid derivs., and their characteristics were investigated for 193 nm single layer resist. Among the derivs., a deoxycholic acid structure was selected from the viewpoints of its ability for dry-etching resistance, adhesion on a substrate, and soly. for resist solvents. A work of adhesion, Ohnishi and ring parameters were used as measures for the adhesion and the dry-etching resistance in this study. In the syntheses of the polymers, the use of 3-.beta.-methacryloyloxy-deoxycholic acid, which is the inverse configuration against the original 3-.alpha.-structure, was effective as a monomer, because the steric hindrance at 3-.alpha.-position degraded its polymn. ability. The

polymers partially protected by acid labile groups showed a satisfactory adhesion, which was probably due to the hydrophilic hydroxyl group at the 12-position and the carboxyl group linked at the 17-position, and a good dry-etching resistance. On the lithog. imaging with these polymers, the redn. of the side reaction on the acid decompn. and also the control of the flexibility on the polymers largely affected their performance. The adjustment of the Tg values of the polymers by the co-polymn. and the change of the polymer backbone from the methacrylate to acrylate structure

performed well on imaging under 193 nm exposure.

REFERENCE COUNT: 14

REFERENCE(S):

- (1) Allen, R; J Photopolym Sci Tech 1995, V8, P623 CAPLUS
 - (2) Gokan, H; J Electrochem Soc 1983, V130, P143 CAPLUS
 - (3) Houlihan, F; Proc of SPIE 1997, V3049, P84 CAPLUS
 - (4) Iwasa, S; Proc of SPIE 1997, V3049, P126 CAPLUS
 - (5) Kaimoto, Y; Proc of SPIE 1992, V1672, P66 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:260860 CAPLUS

DOCUMENT NUMBER: 130:345049

TITLE: Positive-working photosensitive composition

INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

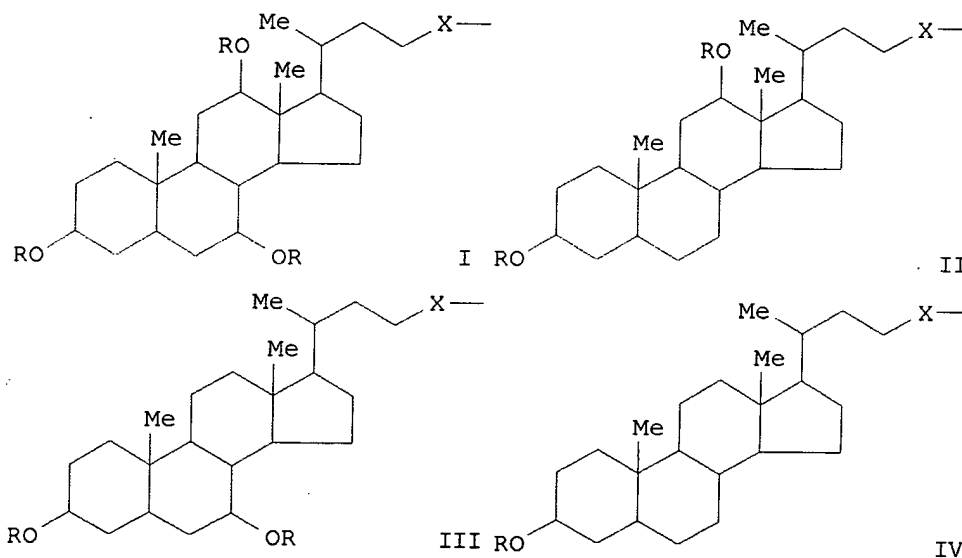
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11109628	A2	19990423	JP 1997-267024	19970930

GI



AB The title compn. contains a compd. generating acid upon active ray or radiation irradiation and a resin having a group selected from polycyclic, alicyclic groups I-IV [R = H, (substituted) straight-chain or branched

alkyl, cycloalkyl, alkenyl, acyl; X = single bo divalent alkylene
 which
 may have ether, ester, amide, urethane or ureido group, alkenylene,
 cycloalkylene] and a group which is decompd. by the action of acid to
 increase the soly. in alk. developing solns. The compn. shows high
 photosensitivity in the region of .ltoreq.250 nm, esp. .ltoreq.220 nm and
 provides a high resolu. pattern with good dry etch resistance and
 adhesion
 to substrate.

L5 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1998:760085 CAPLUS
 DOCUMENT NUMBER: 130:31165
 TITLE: Positive resist composition
 INVENTOR(S): Aoai, Toshiaki; Kondo, Shunichi; Sato, Kenichiro;
 Yamaoka, Tsuguo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 84 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 878738	A2	19981118	EP 1998-108549	19980511
EP 878738	A3	19990623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10312060	A2	19981124	JP 1997-120919	19970512
JP 11160877	A2	19990618	JP 1998-268267	19980922
PRIORITY APPLN. INFO.:			JP 1997-120919	19970512
			JP 1997-260399	19970925

AB Disclosed is a pos. resist compn. which ensures, on use of an exposure
 light source of 220 nm or less, high sensitivity, good resolu.,
 sufficiently high resistance against dry etching, satisfactory adhesion
 to
 the substrate, and superior developability even with a developer
 conventionally used for resists (for example, a 2.38% aq.
 tetramethylammonium hydroxide soln.), the pos. resist compn. comprising a
 compd. generating an acid on irradiation of an active light ray or radiation,
 a resin having a polycyclic-type alicyclic group and a carboxyl group,
 and
 a compd. having at least two groups having the structure R1R2C=CR3Z-
 (R1-3
 = H, alkyl, or cycloalkyl with the proviso that two of R1-3 may be
 combined to form a ring having 3-8 carbon or hetero atoms; Z = O, S, SO2,
 or NH).

L5 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1998:744916 CAPLUS
 DOCUMENT NUMBER: 130:31164
 TITLE: Positive photosensitive composition
 INVENTOR(S): Aoai, Toshiaki; Sato, Kenichiro; Yagihara, Morio
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 64 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 877293	A2	19981111	EP 1998-108461	19980508

EP 877293 A3 19990623

R: AT, BE, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

JP 10307397 A2 19981117

JP 10307398 A2 19981117

JP 1997-119772 19970509

JP 1997-119773 19970509

JP 1997-119772 19970509

JP 1997-119773 19970509

PRIORITY APPLN. INFO.:

AB Disclosed is a pos. photosensitive compn. capable of giving good sensitivity, resoln. and resist patterns and exhibiting sufficiently high dry etching resistance on use of an exposure light source of 250 nm or less, particularly 220 nm or less, and comprising (A) a compd. generating an acid on irradiation of an active light ray or radiation and (B) a resin having (i) at least one polycyclic-type alicyclic group, (ii) at least one

ester group which decomps. by the action of an acid and increases the soly. in an alkali developer, and (iii) at least one acetal group which decomps. by the action of an acid and increases the soly. in an alkali developer or comprises (A) a compd. generating an acid on irradiation of an active light ray or radiation, (B) a resin having a polycyclic-type alicyclic group and an ester group which decomps. by the action of an acid

and increases the soly. in an alkali developer, and (C) a resin having a polycyclic-type alicyclic group and an acetal group which decomps. by the action of an acid and increases the soly. in an alkali developer.

L5 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:580254 CAPLUS

DOCUMENT NUMBER: 129:267914

TITLE: Positive-working photosensitive composition with high sensitivity toward far ultraviolet ray

INVENTOR(S): Aogo, Toshiaki; Tan, Shiro; Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

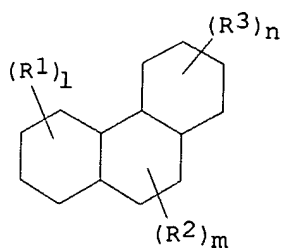
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

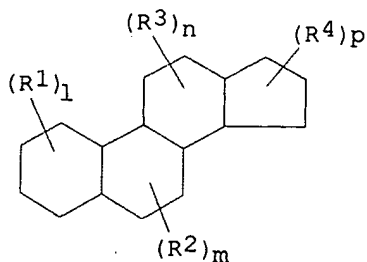
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10232495	A2	19980902	JP 1997-33958	19970218
US 6042991	A	20000328	US 1998-25451	19980218
			JP 1997-33958	19970218
			JP 1997-46000	19970228

PRIORITY APPLN. INFO.:

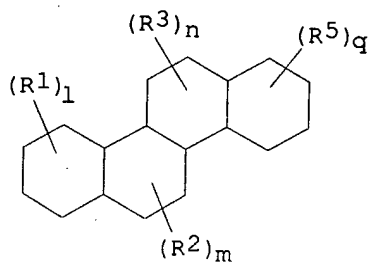
GI



I



II



III

AB The title compn. contains a compd. generating acid upon active ray or radiation irradiation and a resin having .gtoreq.1 monovalent polycyclic alicyclic group of I, II, or III [R1-5 = alkyl, cycloalkyl, alkenyl, alkynyl (these groups may be substituted), halo, CN, R6OR7, R8CO2R9, R10CONR11R12, R13OCOR14; R7, R9 = H, alkyl, cycloalkyl, alkenyl (these groups may be substituted), group that is decompd. by the action of acid to increase the soly. in alk. developing solns.; R11, R12, R14 = H, alkyl, cycloalkyl, alkenyl (these groups may be substituted), R11 and R12 may link to form a ring; R6, R8, R10, R13 = single bond, alkylene, alkenylene, cycloalkylene (these groups may be substituted); 1, m, n, p, q = 0-5, when 1, m, n, p, q .gtoreq. 2, the plural groups in each R1-5 may be different, when 2 groups in each R1-5 are substituted at the same C atom, they may represent carbonyl or thiocarbonyl group, when 2 groups in each R1-5 are substituted at adjacent C atoms, they may link to form double bond between these C atoms, when .gtoreq.2 groups in each R1-5 are substituted, they may link to form a ring; I, II, and III may link to the resin at any position in the polycyclic structures] and a group that is decompd. by the action of acid to increase the soly. in alk. developing solns.. The compn. shows high sensitivity to UV ray of .ltoreq.250 nm, esp. .ltoreq.220 nm and provides high resolu. patterns with good profile and dry etch resistance. The compn. gives fine patterns and is useful of manuf. of semiconductor devices.

L5 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1998:545694 CAPLUS
 DOCUMENT NUMBER: 129:223253
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATI	O.	DATE
JP 10221852	A2	19980821	JP 1997-24011		19970206

AB The title compn. comprises a resin having .gtoreq.1 repeating unit contg. groups that are decompd. upon active ray or irradiation to generate acid, .gtoreq.1 alicyclic group-contg. repeating unit, and .gtoreq.1 repeating unit contg. groups that are decompd. by the action of acid to increase the soly. in alk. developing solns. The compn. shows high sensitivity toward light of wavelength .ltoreq.250 nm, esp. .ltoreq.220 nm, and high dry etch resistance and provides high resolu. resist patterns with good profile independent of the elapse of time from exposure to post-bake.

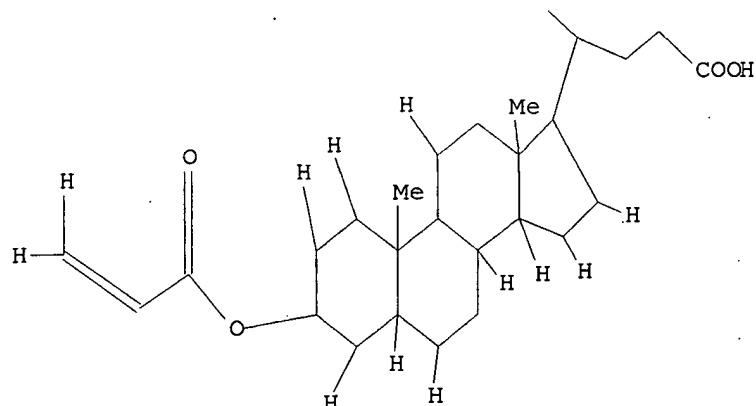
L5 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1997:707390 CAPLUS
 DOCUMENT NUMBER: 127:331426
 TITLE: Hydrophobic effect on 1,3-dipolar cycloaddition reactions
 AUTHOR(S): Pandey, Pramod S.; Pandey, Inder K.
 CORPORATE SOURCE: Department of Chemistry, Indian Institute of Technology, New Delhi, 110 016, India
 SOURCE: Tetrahedron Lett. (1997), 38(41), 7237-7240
 CODEN: TELEAY; ISSN: 0040-4039
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 127:331426

AB The rate and selectivity of 1,3-dipolar cycloaddn. reactions of C,N-diphenylnitrone are influenced by the hydrophobic effect.

L5 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1992:408520 CAPLUS
 DOCUMENT NUMBER: 117:8520
 TITLE: Radically polymerizable cholic acid derivatives in monolayers, micelles, and vesicles
 AUTHOR(S): Ahlheim, Markus; Hallensleben, Manfred L.
 CORPORATE SOURCE: Inst. Makromol. Chem., Univ. Hannover, Hannover, D-3000, Germany
 SOURCE: Makromol. Chem. (1992), 193(3), 779-97
 CODEN: MACEAK; ISSN: 0025-116X
 DOCUMENT TYPE: Journal
 LANGUAGE: German

AB The synthesis of radically polymerizable derivs. of cholic acid contg. a methacrylic group directly attached to C-3 or via a C11 cinnamic ester spacer is described. The monomers form monolayers, vesicles, and micelles. In vesicles and in micelles the monomers undergo neither photodimerization via the cinnamoyl group nor do they polymerize, but they photodimerize in an amorphous film and polymerize in isotropic soln.

L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 15:49:14 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 173 TO 747
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

L3 0 L2

=> s 11 full

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=>

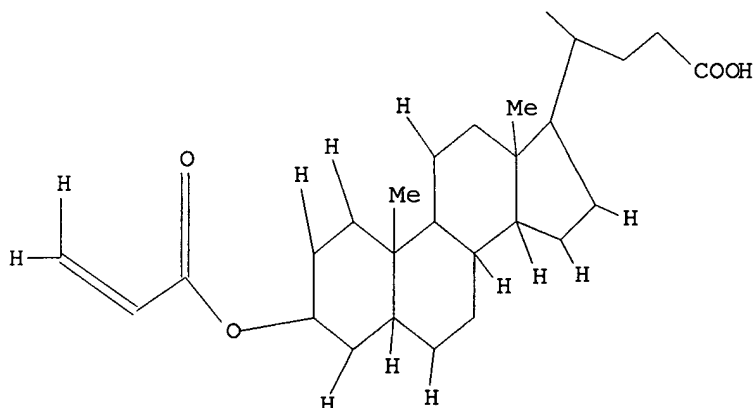
Uploading 941.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 13:26:39 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 22 TO ITERATE
100.0% PROCESSED 22 ITERATIONS
SEARCH TIME: 00.00.01

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 159 TO 721
PROJECTED ANSWERS: 1 TO 80

L2

1 SEA SSS M L1

L3

0 L2

=> s l1 full

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 13:26:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 524 TO ITERATE
100.0% PROCESSED 524 ITERATIONS
SEARCH TIME: 00.00.01

55 ANSWERS

L4

55 SEA SSS FUL L1

L5

20 L4

=> d l5 1-5 ibib abs hitstr

L5 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:67678 CAPLUS
DOCUMENT NUMBER: 132:130026
TITLE: Positive-working resist composition suited for use in
deep UV ray exposure
INVENTOR(S): Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

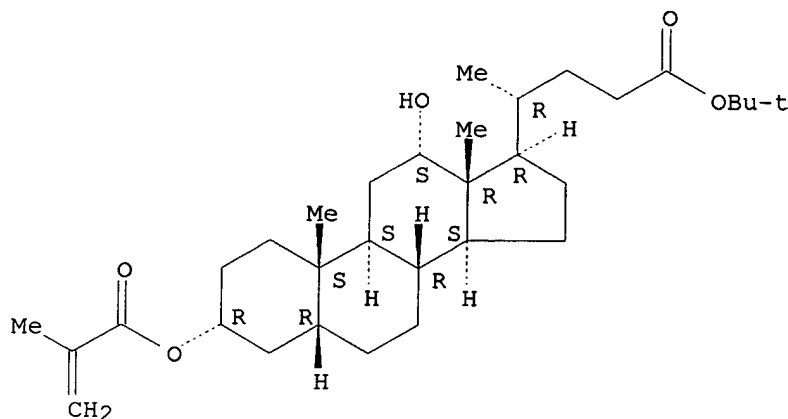
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000029219	A2	20000128	JP 1998-197730	19980713

AB The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO₂H groups, (c) a compd. having 2 groups CR₁R₂C:CR₃Z [R₁-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2 of R₁₃ may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO₂, NH], (d) a cyclic aliph. org. carboxylic acid with mol. wt. 1000 and/or a naphthalene ring-contg. org. carboxylic acid, (e) a N-contg. basic compd., and (f) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a resolu. pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.

IT **216308-53-1P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

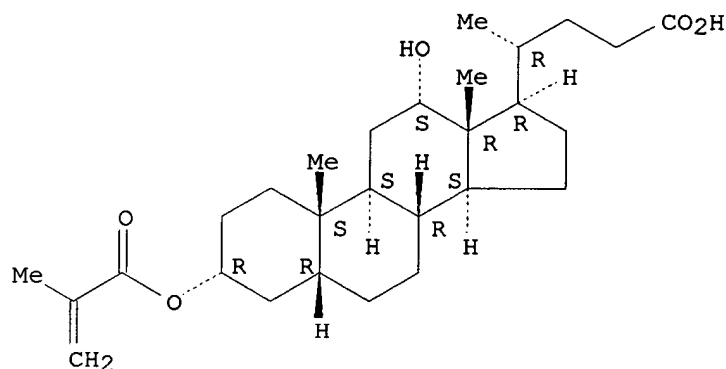
(deep UV-sensitive pos. resist compn.)
 RN 216308-53-1 CAPLUS
 CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with (3.alpha.,5.beta.,12.alpha.)-1,1-dimethylethyl 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]cholan-24-oate (9CI) (CA INDEX NAME)
 CM 1
 CRN 216308-52-0
 CMF C32 H52 O5

Absolute stereochemistry.



CM 2
 CRN 212580-18-2
 CMF C28 H44 O5

Absolute stereochemistry.

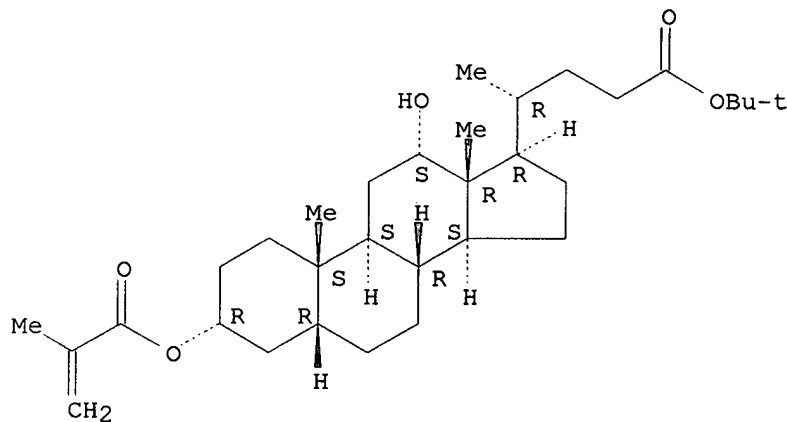


L5 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 2000:67677 CAPLUS
 DOCUMENT NUMBER: 132:130025
 TITLE: Positive-working resist composition suited for use in deep ultraviolet ray exposure
 INVENTOR(S): Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000029218	A2	20000128	JP 1998-197729	19980713
AB	The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO ₂ H groups, (c) a compd. having .gtoreq.2 groups CR ₁ R ₂ C:CR ₃ Z [R ₁ -3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2				
of	R ₁ 3 may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO ₂ , NH], (d) a N-contg. basic compd., and (e) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.				
IT	216308-53-1P RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (deep UV-sensitive pos. resist compn.)				
RN	216308-53-1 CAPLUS				
CN	Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with (3.alpha.,5.beta.,12.alpha.)-1,1-dimethylethyl 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]cholan-24-oate (9CI) (CA INDEX NAME)				
CM	1				
CRN	216308-52-0				
CMF	C32 H52 O5				

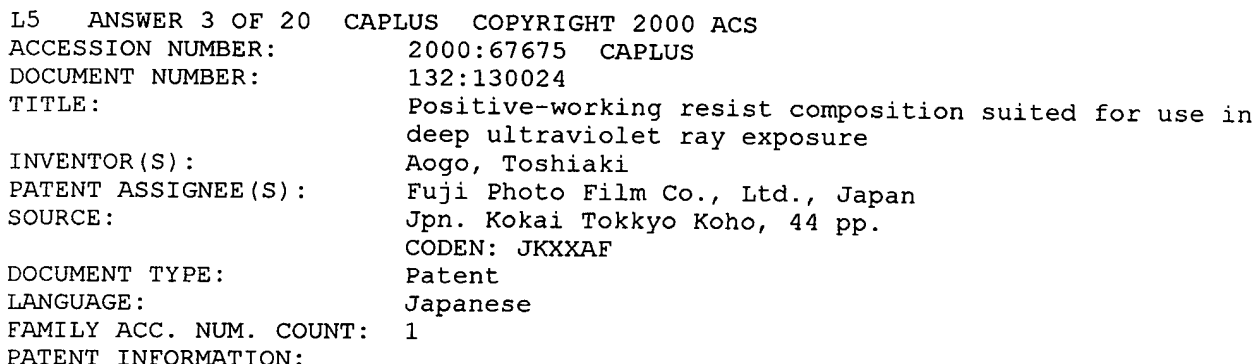
Absolute stereochemistry.



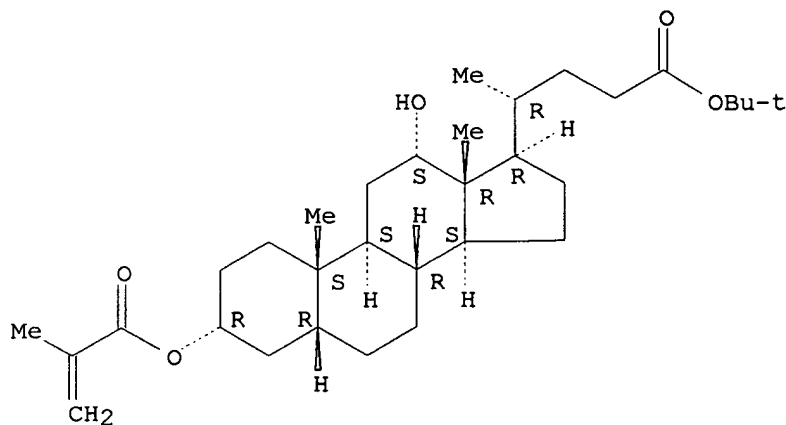
CM 2

CRN 212580-18-2
CMF C28 H44 O5

Absolute stereochemistry.



Absolute stereochemistry.

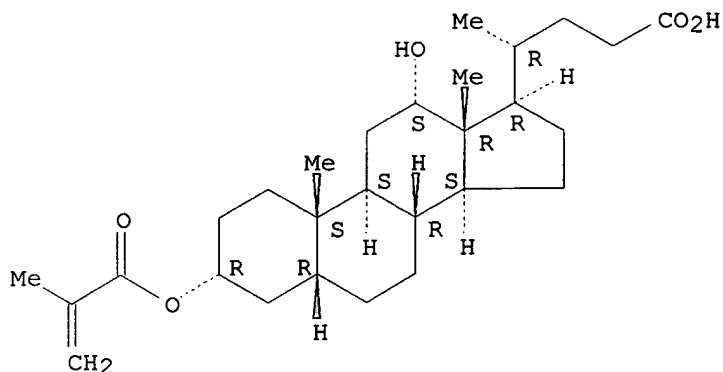


CM 2

CRN 212580-18-2

CMF C28 H44 O5

Absolute stereochemistry.



L5 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:48990 CAPLUS

DOCUMENT NUMBER: 132:100459

TITLE: Positive-working photoresist composition for far ultraviolet ray exposure

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fujii Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 102 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

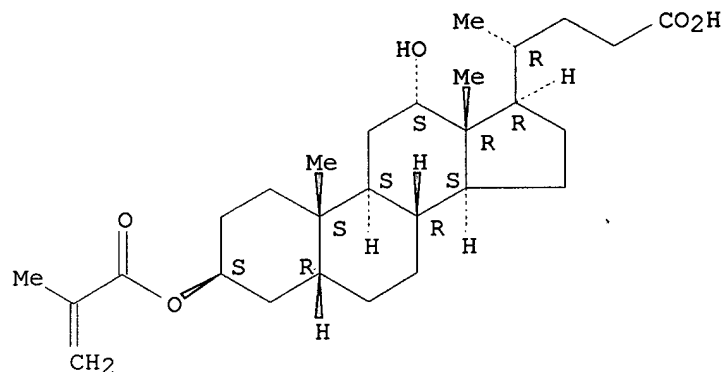
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000019737	A2	20000121	JP 1998-187597	19980702

AB The title photoresist compn. contains a compd. generating an acid upon active ray or radiation irradiation and a resin having a group XR (X = R1, SR1, OR1, NHR1, NR2R1; R = alkoxy, OH, CO2R2, CONHR2, CONHSO2R2, CONH2;

R1 = C1-20 divalent hydrocarbon; R2 = alkyl) in .gtoreq.1 of the termini of the mol. chain, which is decompd. by the action of acid to increase the soly. in alkali developing solns. The compn. shows high sensitivity toward light with wavelength .ltoreq.250 nm, esp. .ltoreq.220 nm and

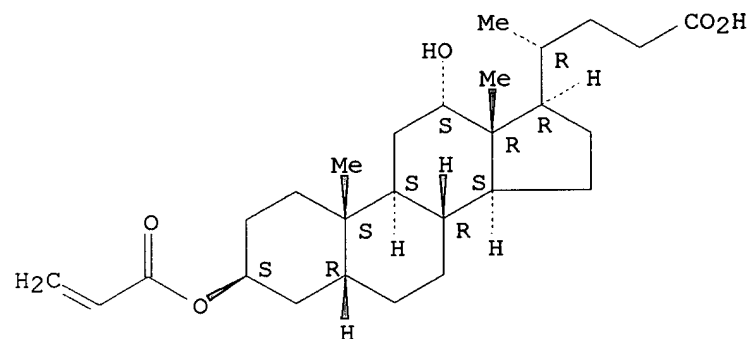
of provides a high resolu. resist pattern with good profile, and the soln.
 the compn. in org. solvents exhibits high storage stability.
 IT **244176-33-8P 250598-43-7P**
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation)
 (prepn. and polymn. of)
 RN 244176-33-8 CAPLUS
 CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 (3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 250598-43-7 CAPLUS
 CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
 (3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

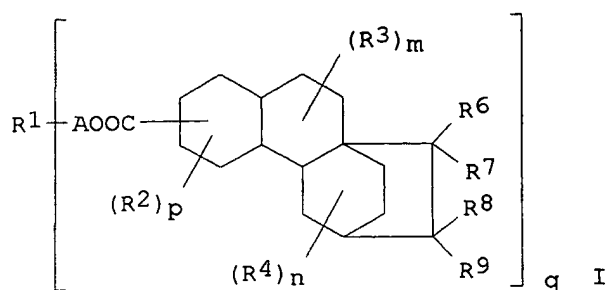
Absolute stereochemistry.



L5 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 2000:32497 CAPLUS
 DOCUMENT NUMBER: 132:100449
 TITLE: Positively working photoresist composition for
 far-ultraviolet exposure
 INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki; Kawabe, Yasumasa
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 122 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000010285	A2	20000114	JP 1998-173379	19980619

OTHER SOURCE(S): MARPAT 132:100449



AB The compn. contains (A) an acid-decomposable resin to increase soly. in alkali compds., (B) an acid generator by radiation of an active energy beam or radial rays, and (C) a polycyclic aliph. compd. I [R1 =

2-6-valent

linkage group; R2-4 = (substituted) hydrocarbon, alkoxy, halo, OH, amino, CO2R0, CO2R5, NHCOR5, NHSO2R5; R5 = (substituted) hydrocarbon; R0 = acid-decomposable group-forming moiety; R6-9 =H, (substituted) hydrocarbon, halo, cyano, CO2R0, CO2R5, COXAR10; X = O, S, NH, NHSO2, NHSO2NH; A = none, divalent org. linkage group; R10 = (substituted) hydrocarbon, lactone, OH, alkoxy, CO2H, cyano; a = 2-6; l, n = 0-6; m = 0-4]. The compn. is highly sensitive to 170-220-nm light to give crack-free resist patterns.

IT **254753-25-8P**

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(pos. working photoresist compn. for far-UV exposure contg.

acid-decomposable aliph. polycyclic compd. as dissoln. inhibitor)

RN 254753-25-8 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.,12.alpha.)-, polymer with 1,1-dimethylethyl

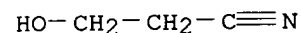
2-propenoate,

2-cyanoethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 109-78-4

CMF C3 H5 N O



CM 2

CRN 250598-49-3

CMF (C27 H42 O5 . C7 H12 O2)x

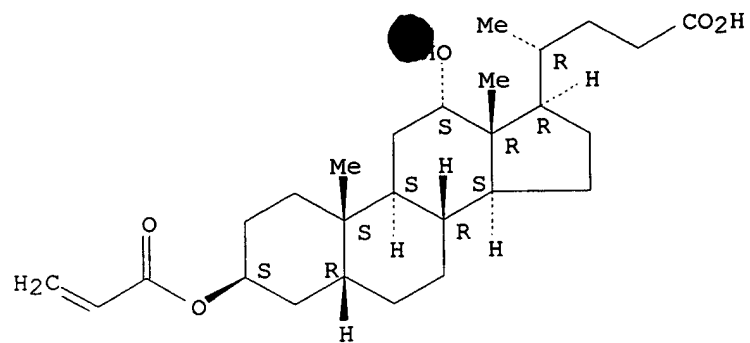
CCI PMS

CM 3

CRN 250598-43-7

CMF C27 H42 O5

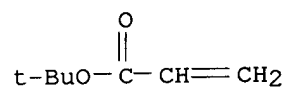
Absolute stereochemistry.



CM 4

CRN 1663-39-4

CMF C7 H12 O2



=> d 15 6-10 ibib abs hitstr

L5 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:752380 CAPLUS

DOCUMENT NUMBER: 132:17146

TITLE: Far-UV-sensitive positive-working photoresist composition having functionalized acrylate polymer

INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 87 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11327148	A2	19991126	JP 1999-66682	19990312
PRIORITY APPLN. INFO.:			JP 1998-61478	19980312

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The far-UV-sensitive pos.-working photoresist compn. has (A) an active-ray

sensitive acid-generating compd., (B) a resin contg. a monovalent polycyclic aliph. ring group I (R1-3 = alkyl, cycloalkyl, alkenyl, etc.; m2, m, n = 0, 1-5 integer) and an acid-sensitive alkali-soly. increasing group, and a compd. II (X = O, S, N(R53)-; R51-53 = H, alkyl; R' = acid-sensitive group; R = bridged hydrocarbon, naphthalene ring; n1 = 1-4 integer; q1 = 0-10 integer) or III (R60 = H, alkyl; R61 = acid-sensitive group; m1, p1 = 1-4 integer). The photoresist compn. provides the excellent sensitivity, the high resolu., and the excellent pattern characteristics.

IT **244176-33-8P 250598-43-7P**

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation)
(far-UV-sensitive pos.-working photoresist compn. having

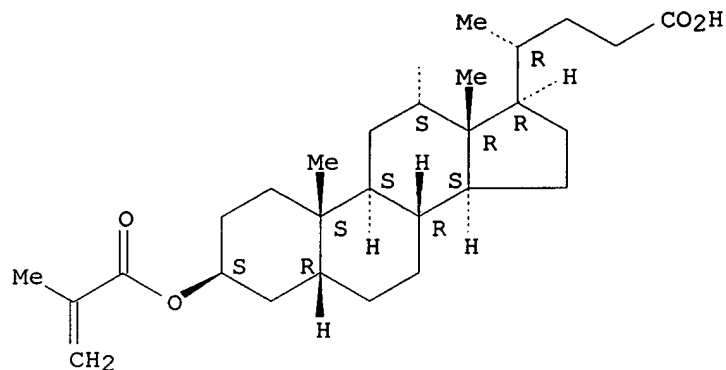
functionalized

acrylate polymer)

RN 244176-33-8 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

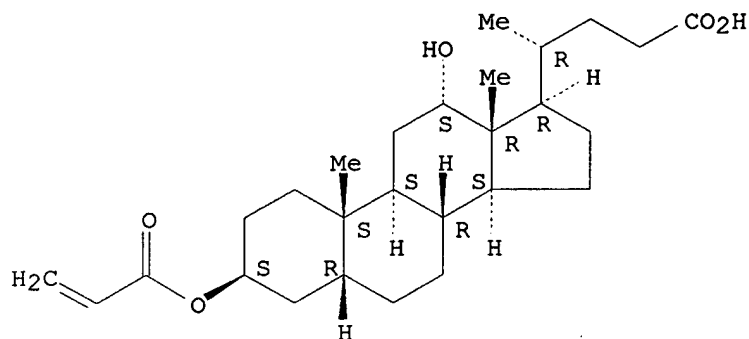
Absolute stereochemistry.



RN 250598-43-7 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 244176-34-9 251365-70-5

RL: TEM (Technical or engineered material use); USES (Uses)
(far-UV-sensitive pos.-working photoresist compn. having
functionalized
acrylate polymer)

RN 244176-34-9 CAPLUS

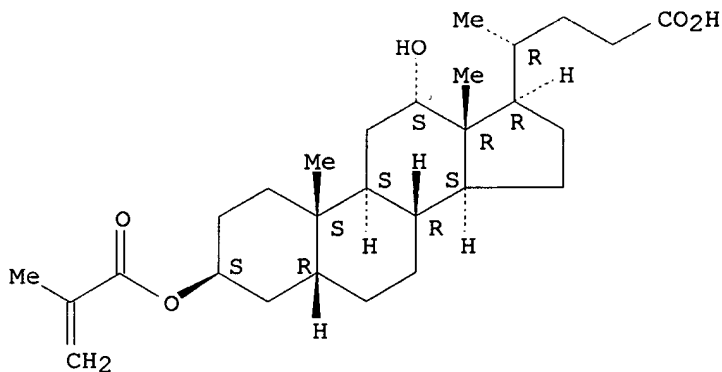
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.beta.,12.alpha.)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 244176-33-8

CMF C28 H44 O5

Absolute stereochemistry.



AB The esters, useful for photosensitive materials, are alicyclic compds. I (R1, R2 = H, OH; R3 = H, Me). Thus, 70 g deoxycholic acid was treated with EtOCH2Cl, further treated with 33 g methacrylic acid in the presence of di-Et azodicarboxylate, and hydrolyzed with HCl to give 45 g I (R1 = OH; R2 = H; R3 = Me) with m.p. 192-193.degree..

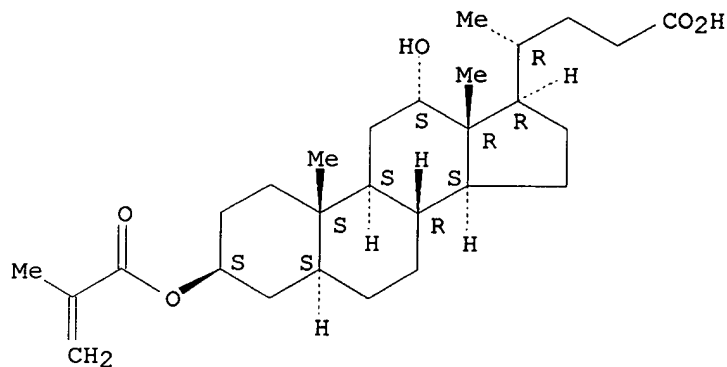
IT 245404-55-1P 245404-57-3P 245404-58-4P
245404-59-5P 245404-60-8P 245404-61-9P
245404-62-0P 245404-63-1P

RL: IMF (Industrial manufacture); PREP (Preparation)
(meth)acrylic acid-cholic acid deriv. esters for photosensitive
comps.)

RN 245404-55-1 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

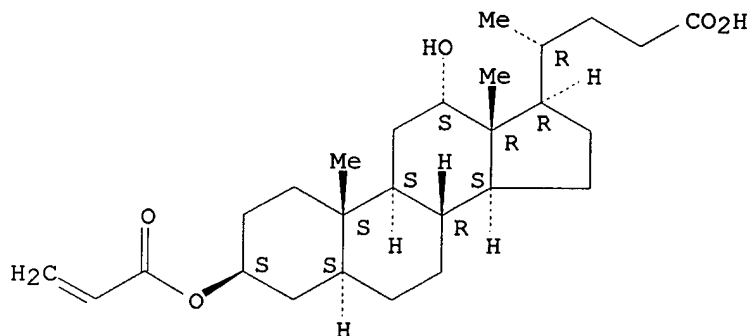
Absolute stereochemistry.



RN 245404-57-3 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

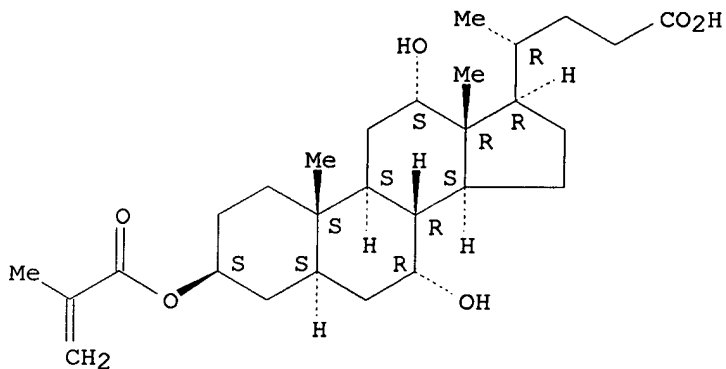
Absolute stereochemistry.

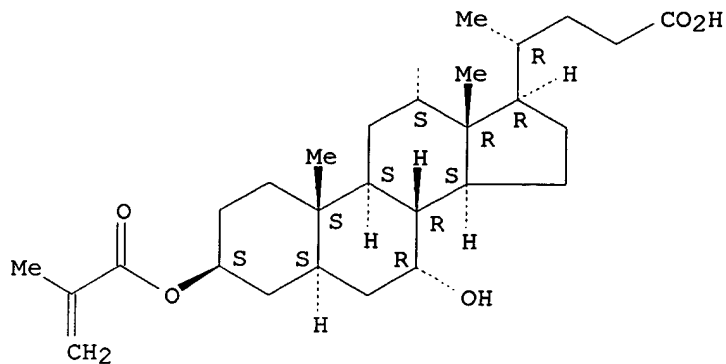


RN 245404-58-4 CAPLUS

CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.,7.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

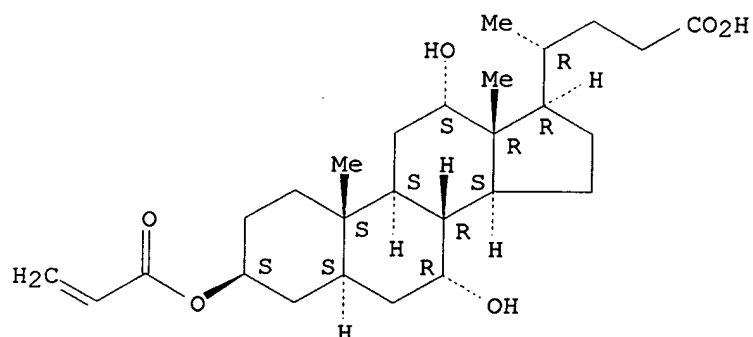




RN 245404-59-5 CAPLUS

CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.,7.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

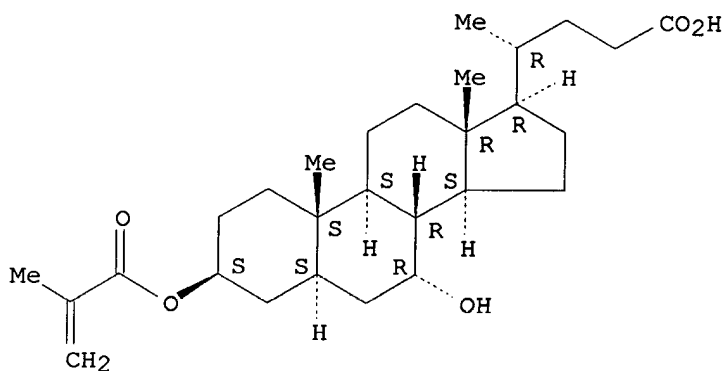
Absolute stereochemistry.



RN 245404-60-8 CAPLUS

CN Cholan-24-oic acid, 7-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

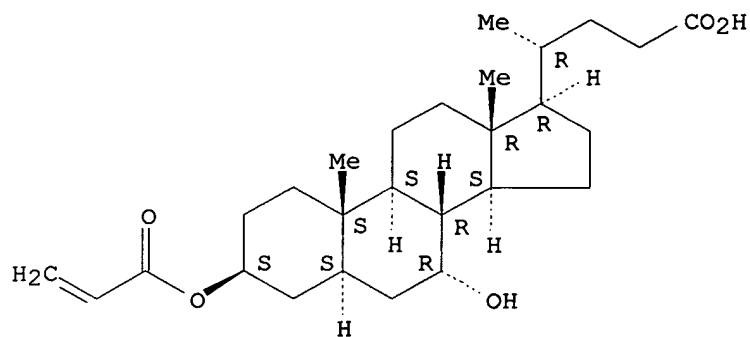
Absolute stereochemistry.



RN 245404-61-9 CAPLUS

CN Cholan-24-oic acid, 7-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

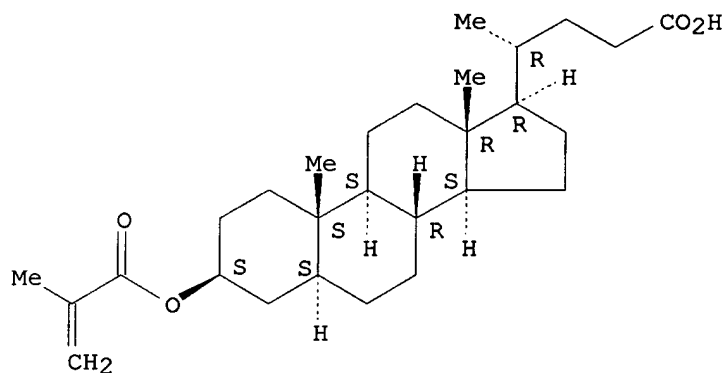
Absolute stereochemistry.



RN 245404-62-0 CAPLUS

CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.alpha.)- (9CI) (CA INDEX NAME)

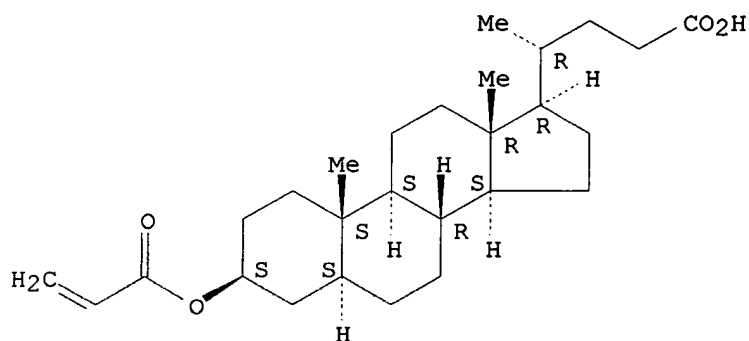
Absolute stereochemistry.



RN 245404-63-1 CAPLUS

CN Cholan-24-oic acid, 3-[(1-oxo-2-propenyl)oxy]-, (3.beta.,5.alpha.)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:610661 CAPLUS

DOCUMENT NUMBER: 131:250429

TITLE: Negative-working resist composition containing cyclic imide compound and polymer having alicyclic group

INVENTOR(S): Seigo, Toshiaki; Kondo, Shunichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

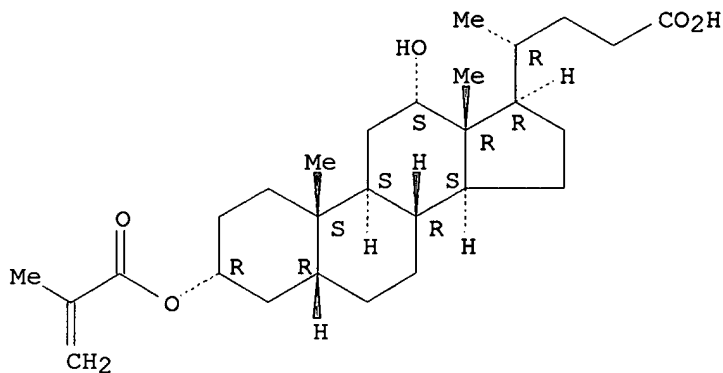
CODEN: JKXXAF

DOCUMENT TYPE: Patent

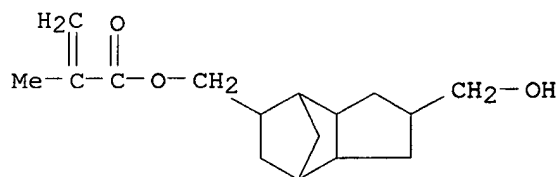
LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 11258801	A2	19990924	JP 1998-65598	19980316
AB	The title resist compn. contains a compd. generating an acid upon activating ray or radiation irradiation, a resin having polycyclic alicyclic and OH groups, and a cyclic imide compd. The compn. shows high sensitivity toward far UV rays in the region of .ltoreq.220 nm and storage stability and provides a high resolu. pattern with good dry etch resistance.				
IT	244141-13-7 RL: TEM (Technical or engineered material use); USES (Uses) (photoresist compn. contg. acid generator, resin with polycyclic alicyclic group and hydroxy group, and cyclic imide compd.)				
RN	244141-13-7 CAPLUS				
CN	Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with [octahydro-2-(hydroxymethyl)-4,7-methano-1H-inden-5-yl]methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)				
CM	1				
CRN	212580-18-2				
CMF	C28 H44 O5				

Absolute stereochemistry.



CM 2
 CRN 173161-66-5
 CMF C16 H24 O3



CM 3
 CRN 107-13-1
 CMF C3 H3 N



L5 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:610643 CAPLUS

DOCUMENT NUMBER: 131:250421

TITLE: Positive-working photosensitive composition for exposure to far ultraviolet ray

INVENTOR(S): Sato, Kenichiro; Seigo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

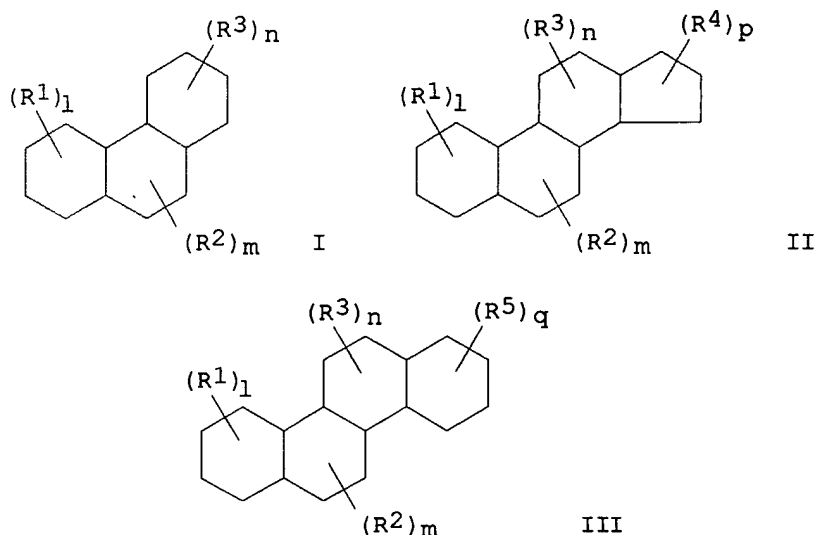
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11258782	A2	19990924	JP 1998-61449	19980312

GI



AB The title compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having .gtoreq.1 monovalent polyalicyclic group I, II or III (R¹-5 = alkyl, cycloalkyl, alkenyl, acyloxy, alkynyl, halo, cyano, R⁶OR⁷, R⁸CO²R⁹, R¹⁰CONR¹¹R¹², R¹³OCOR¹⁴, R¹⁵COX^{1A}R¹⁶, R¹⁵COX^{1A}2R¹⁷, R¹⁵CONHSO²X^{2A}R¹⁷, CO²Z, etc.) and groups which

are decompd. by the action of acid to increase the soly. in alk. developing solns., and (c) a low-mol.-wt. compd. having hydrophilic functional groups and C⁵-30 bridge-contg. hydrocarbon groups or a C¹⁰-30 naphthalene compd. having hydrophilic functional groups as dissoln. accelerator. The compn. shows high sensitivity under light in the region of .ltoreq.250 nm, esp., .ltoreq.220 nm, and develop-ability and provides a high resolu. resist pattern with good profile and adhesion to semiconductor substrate, etc.

IT 212580-18-2P 241486-18-0P

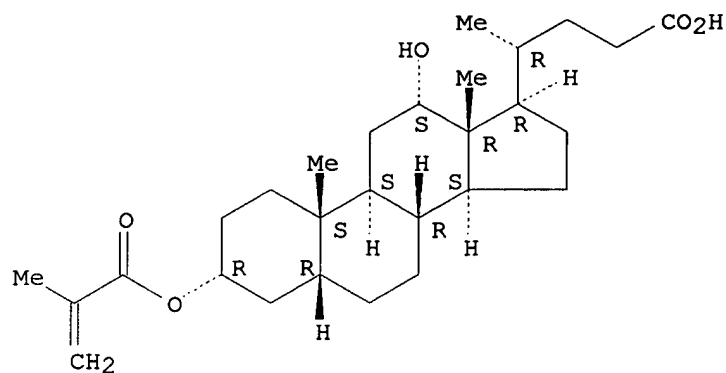
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation)

(monomer; pos.-working photoresist contg. acid-decomp. polyalicyclic
group-substituted resin contg.)

RN 212580-18-2 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

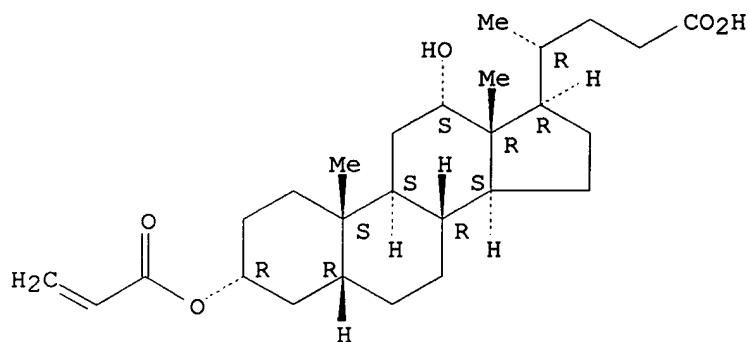
Absolute stereochemistry.



RN 241486-18-0 CAPLUS

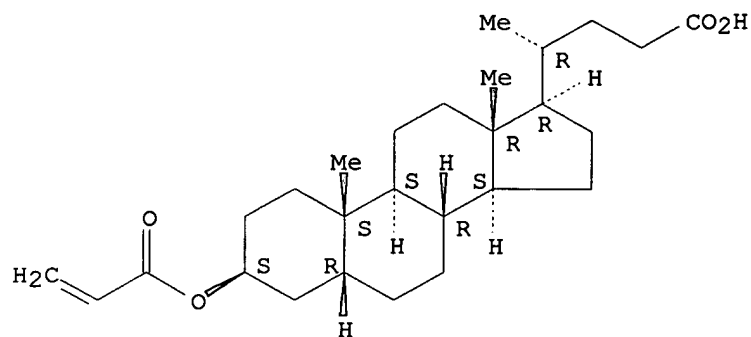
CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



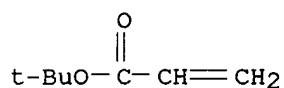
L5 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:572384 CAPLUS
DOCUMENT NUMBER: 131:358106
TITLE: Structural design of new alicyclic acrylate polymers
with androstane moiety for 193-nm resist
AUTHOR(S): Aoi, Toshiaki; Sato, Kenichiro; Kodama, Kunihiko;
Kawabe, Yasumasa; Nakao, Hajime; Yagihara, Morio
CORPORATE SOURCE: Yoshida-Minami Res. Lab., Fuji Photo Film Co., Ltd.,
Haibara-Gun Shizuoka, Japan
SOURCE: Proc. SPIE-Int. Soc. Opt. Eng. (1999), 3678(Pt. 1,
Advances in Resist Technology and Processing XVI),
283-294
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical
Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Synthesis of new alicyclic (meth)acrylate polymers contg. androstane
moieties, esp. cholic acid derivs., and their characteristics were
investigated for 193 nm single layer resists. Among the derivs., a work
of adhesion, Ohnishi and ring parameters were used as measures for the
adhesion and the dry-etching resistance in this study. In the synthesis
of the polymers, the use of 3- (beta) -methacryloyoxy-deoxycholic acid,
which is the inverse configuration against the original 3-(alpha)
-structure, was effective as a monomer, because the steric hindrance at
3-
(alpha) -position degraded its polymn. ability. The polymers partially
protected by acid labile groups showed a satisfactory adhesion, which was
probably due to the hydrophilic hydroxyl group at the 12-position and the
carboxyl group linked at the 17-position, and a good dry- etching
resistance. On the lithog. imaging with these polymers, the redn. of the
side reaction on the acid decompn. and also the control of the
flexibility
on the polymers largely affected their performance. The adjustment of
the
Tg values of the polymers by the co-polymn. and the change of the polymer
backbone from the methacrylate to acrylate structure performed well on
imaging under 193 nm exposure.
IT 250598-45-9 250598-47-1 250598-48-2
250598-49-3 250599-70-3
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)
(structural design of new alicyclic acrylate polymers with androstane
moiety for 193-nm resist)
RN 250598-45-9 CAPLUS
CN Cholan-24-oic acid, 3-[(1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.)-,
polymer with 1,1-dimethylethyl 2-propenoate (9CI) (CA INDEX NAME)
CM 1
CRN 250598-44-8
CMF C27 H42 O4

Absolute stereochemistry.



CM 2

CRN 1663-39-4
CMF C7 H12 O2

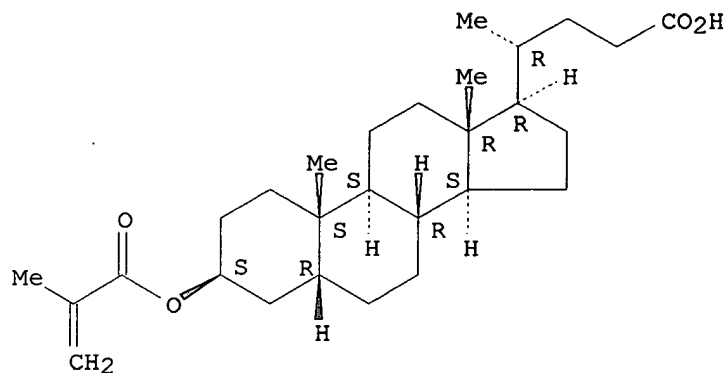


RN 250598-47-1 CAPLUS
CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.beta.)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 250598-46-0
CMF C28 H44 O4

Absolute stereochemistry.



RN 250598-48-2 CAPLUS
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.beta.,12.alpha.)-, polymer with 1,1-dimethylethyl 2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 244176-33-8
CMF C28 H44 O5

Absolute stereochemistry.

RN 250599-70-3 CAPLUS

CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.)-homopolymer, ethoxymethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 10171-38-7
CMF C3 H8 O2

H₃C-CH₂-O-CH₂-OH

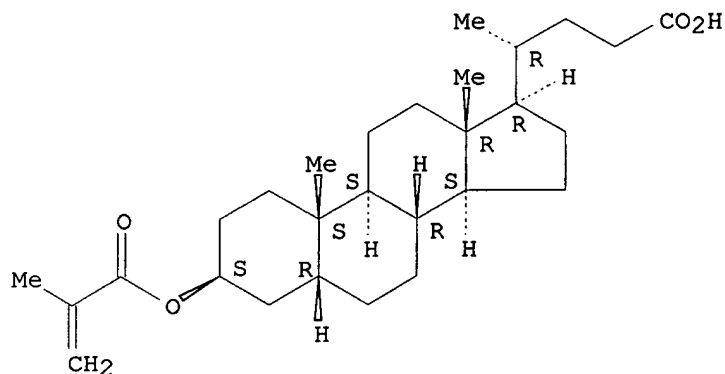
CM 2

CRN 250598-47-1
CMF (C28 H44 O4)x
CCI PMS

CM 3

CRN 250598-46-0
CMF C28 H44 O4

Absolute stereochemistry.



IT 244178-44-7P

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

SPN

(Synthetic preparation); PREP (Preparation); PROC (Process)
(structural design of new alicyclic acrylate polymers with androstane moiety for 193-nm resist)

RN 244178-44-7 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.,12.alpha.)-, homopolymer, ethoxymethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 10171-38-7
CMF C3 H8 O2

H₃C-CH₂-O-CH₂-OH

CM 2

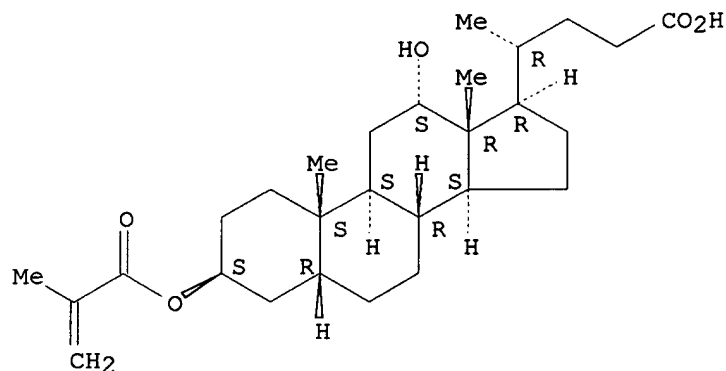
CRN 244176-34-9

CMF (C28 H44 O5) x
CCI PMS

CM 3

CRN 244176-33-8
CMF C28 H44 O5

Absolute stereochemistry.



IT 244176-34-9

RL: RCT (Reactant)

(structural design of new alicyclic acrylate polymers with androstane moiety for 193-nm resist)

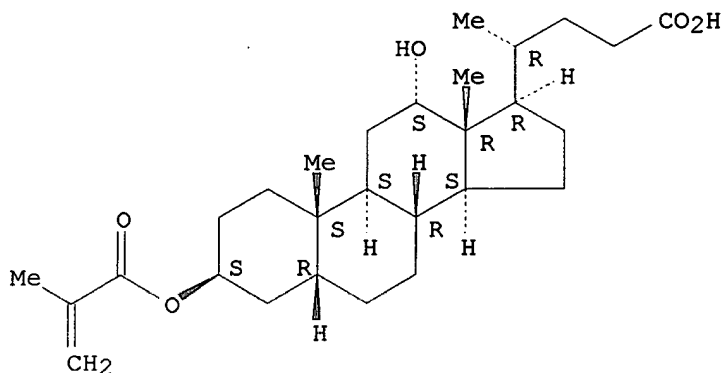
RN 244176-34-9 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.,12.alpha.)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 244176-33-8
CMF C28 H44 O5

Absolute stereochemistry.



IT 212580-18-2P 241486-18-0P 244176-33-8P
250598-43-7P

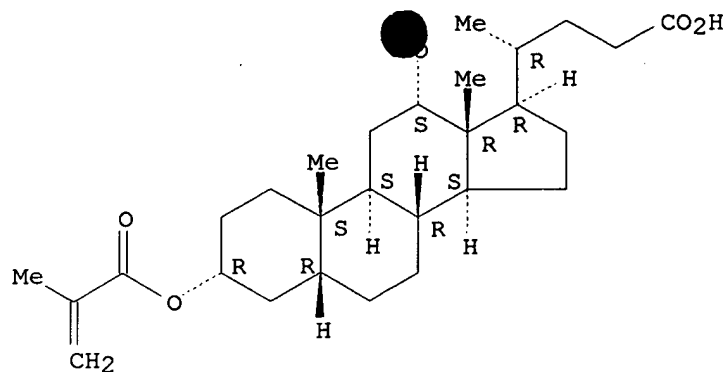
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(structural design of new alicyclic acrylate polymers with androstane moiety for 193-nm resist)

RN 212580-18-2 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

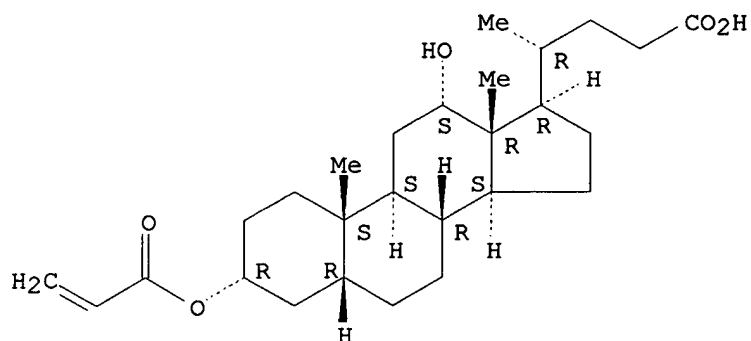
Absolute stereochemistry.



RN 241486-18-0 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

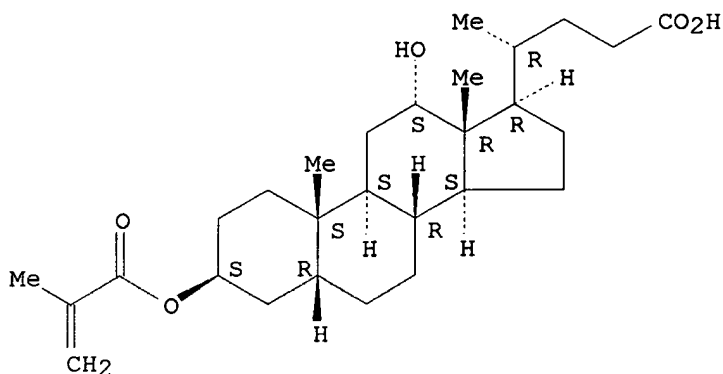
Absolute stereochemistry.



RN 244176-33-8 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

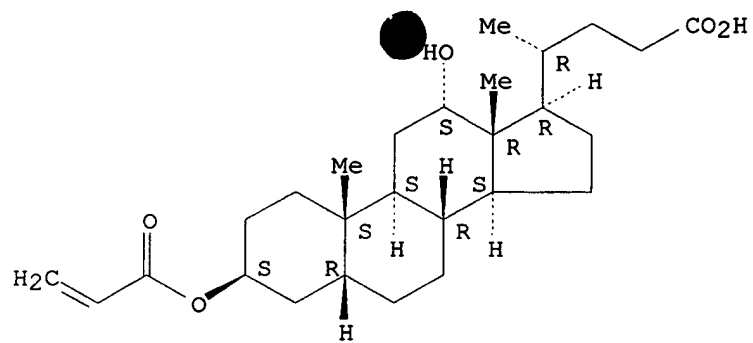
Absolute stereochemistry.



RN 250598-43-7 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
(3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

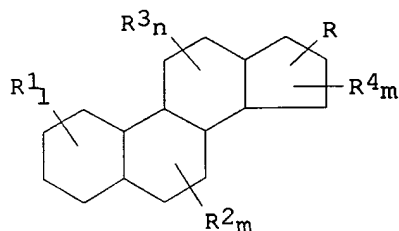


=> d 15 11-14 ibib abs hitstr

L5 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1999:545224 CAPLUS
 DOCUMENT NUMBER: 131:206960
 TITLE: Positive-type far-UV-sensitive resist composition
 INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11231538	A2	19990827	JP 1998-33206	19980216

GI



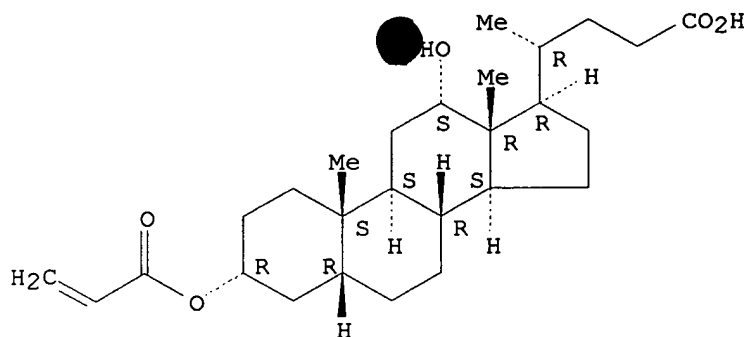
AB The pos.-type far-UV-sensitive resist compn. has an acid-generating compd.
 and a resin having mono valent group I (R1-4 = alkyl, cycloalkyl, halo, cyano, etc.; R = carbonyl deriv. connected with alkylene or cycloalkylene)
 and a group increasing the soly. in an alkali developing soln. by reacting
 with an acid. The resist compn. provides the excellent characteristics in
 the development and in the contact with a substrate.

IT **241486-18-0P 241486-19-1P 241486-21-5P**
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation)
 (pos.-type far-UV-sensitive resist compn.)

RN 241486-18-0 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(1-oxo-2-propenyl)oxy]-,
 (3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

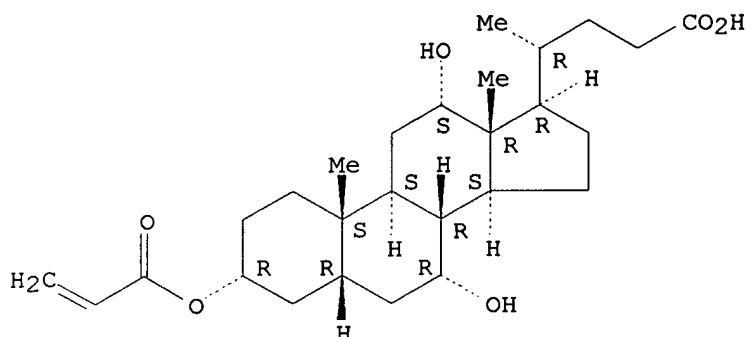
Absolute stereochemistry.



RN 241486-19-1 CAPLUS

CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,7.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

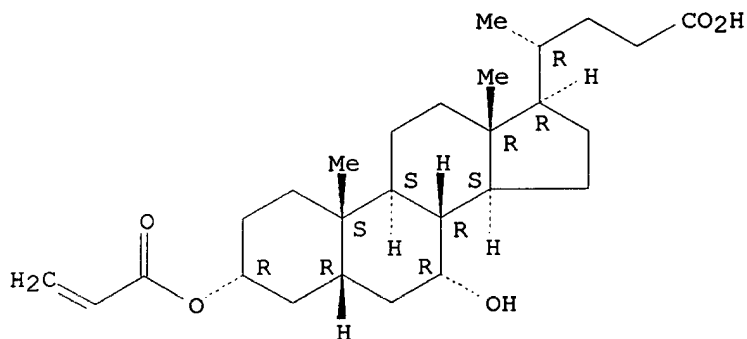
Absolute stereochemistry.



RN 241486-21-5 CAPLUS

CN Cholan-24-oic acid, 7-hydroxy-3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 241486-20-4P 241486-22-6P 241486-24-8P
241487-26-3P 241487-27-4P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
(pos.-type far-UV-sensitive resist compn.)

RN 241486-20-4 CAPLUS

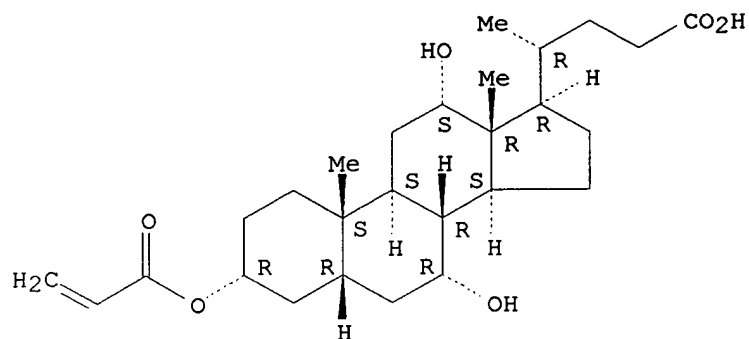
CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-, polymer with ethyl 2-propenoate and (3.alpha.,5.beta.,12.alpha.)-12-hydroxy-3-[(1-oxo-2-propenyl)oxy]cholan-24-oic acid (9CI) (CA INDEX NAME)

CM 1

CRN 241486-19-1

CMF C27 H42 O6

Absolute stereochemistry.

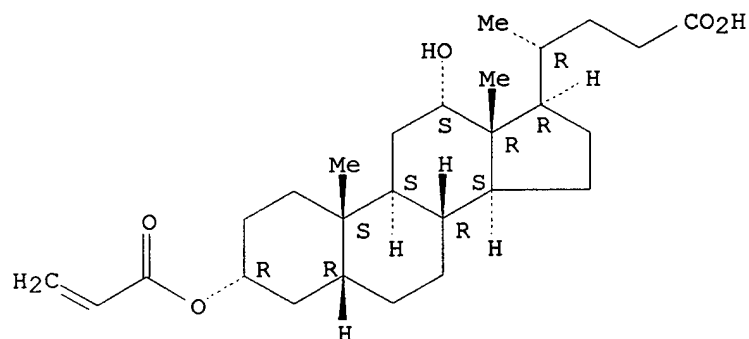


CM 2

CRN 241486-18-0

CMF C27 H42 O5

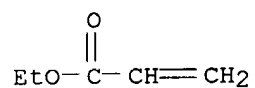
Absolute stereochemistry.



CM 3

CRN 140-88-5

CMF C5 H8 O2



RN 241486-22-6 CAPLUS

CN Cholan-24-oic acid, 7-hydroxy-3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,7.alpha.)-, polymer with ethyl 2-propenoate and N-[(3.alpha.,5.beta.,12.alpha.)-12-hydroxy-24-oxo-3-[(1-oxo-2-propenyl)oxy]cholan-24-yl]glycine 1,1-dimethylethyl ester (9CI) (CA

INDEX

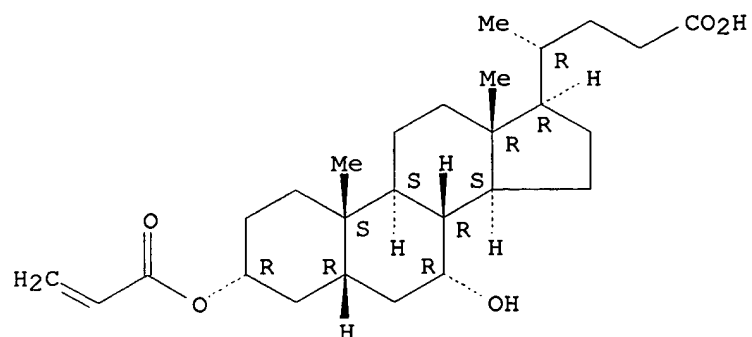
NAME)

CM 1

CRN 241486-21-5

CMF C27 H42 O5

Absolute stereochemistry.

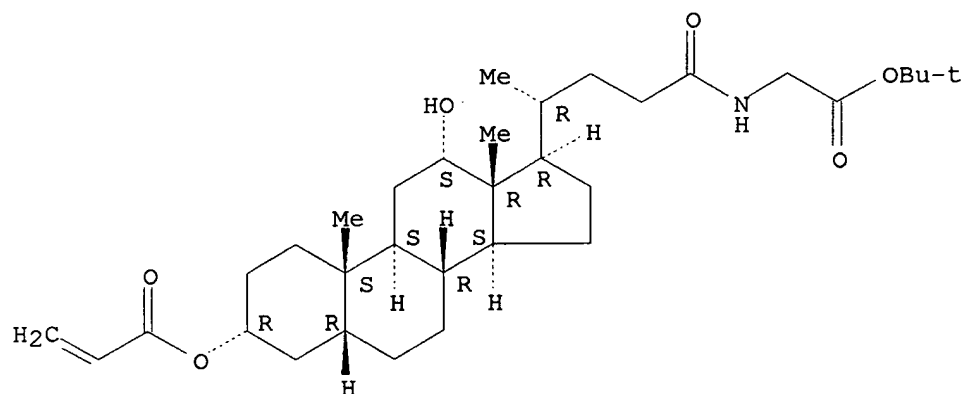


CM 2

CRN 241486-14-6

CMF C33 H53 N O6

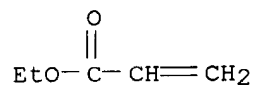
Absolute stereochemistry.



CM 3

CRN 140-88-5

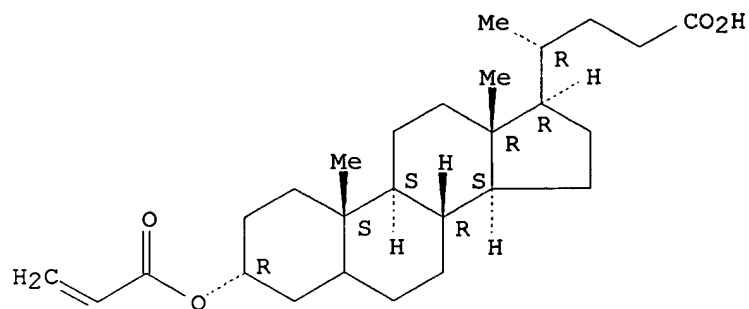
CMF C5 H8 O2



RN 241486-24-8 CAPLUS

CN Cholan-24-oic acid, 3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

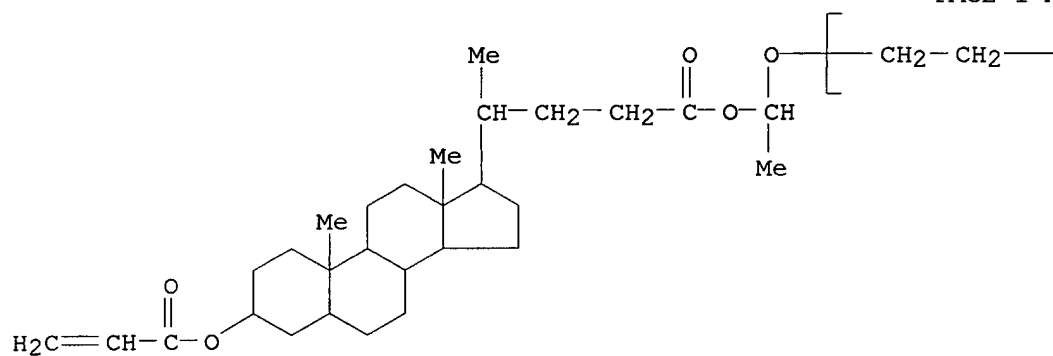


RN 241487-26-3 CAPLUS
 CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-, polymer with .alpha.-methyl-.omega.-[1-[(3.alpha.)-24-oxo-3-[(1-oxo-2-propenyl)oxy]cholan-24-yl]oxy]ethyl]poly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA INDEX NAME)

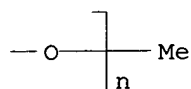
CM 1

CRN 244072-60-4
 CMF (C2 H4 O)n C30 H48 O5
 CCI PMS
 CDES 4:3A.CHOL

PAGE 1-A



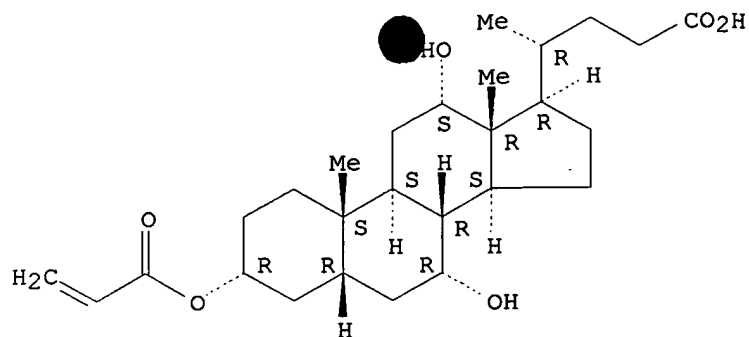
PAGE 1-B



CM 2

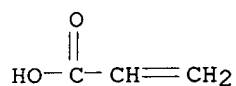
CRN 241486-19-1
 CMF C27 H42 O6

Absolute stereochemistry.



CM 3

CRN 79-10-7
CMF C3 H4 O2

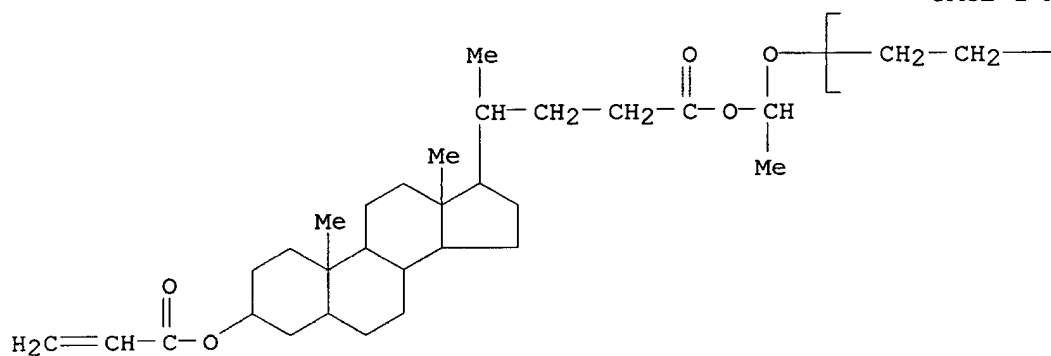


RN 241487-27-4 CAPLUS
CN Cholan-24-oic acid, 3-[(1-oxo-2-propenyl)oxy]-, (3.alpha.)-, polymer with .alpha.-methyl-.omega.-[1-[(3.alpha.)-24-oxo-3-[(1-oxo-2-propenyl)oxy]cholan-24-yl]oxy]ethyl]poly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA INDEX NAME)

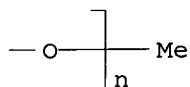
CM 1

CRN 244072-60-4
CMF (C2 H4 O)_n C30 H48 O5
CCI PMS
CDES 4:3A.CHOL

PAGE 1-A

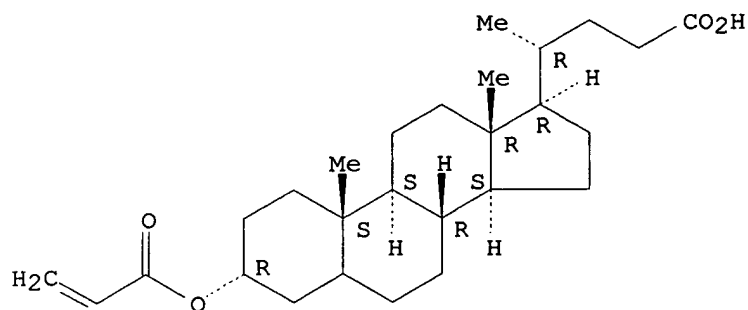


PAGE 1-B



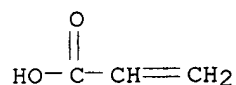
CM 2

CRN 241486-24-8



CM 3

CRN 79-10-7
CMF C3 H4 O2



L5 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:491296 CAPLUS
DOCUMENT NUMBER: 131:116397
TITLE: Preparation of new monomers and polymers for the
preparation of photoresists
INVENTOR(S): Jung, Min Ho
PATENT ASSIGNEE(S): Hyundai Electronics Industries Co., Ltd., S. Korea
SOURCE: Ger. Offen., 16 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19860782	A1	19990729	DE 1998-19860782	19981230
JP 11279227	A2	19991012	JP 1998-374660	19981228
CN 1232826	A	19991027	CN 1998-126084	19981231
PRIORITY APPLN. INFO.:			KR 1997-81391	19971231
OTHER SOURCE(S):			MARPAT 131:116397	
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

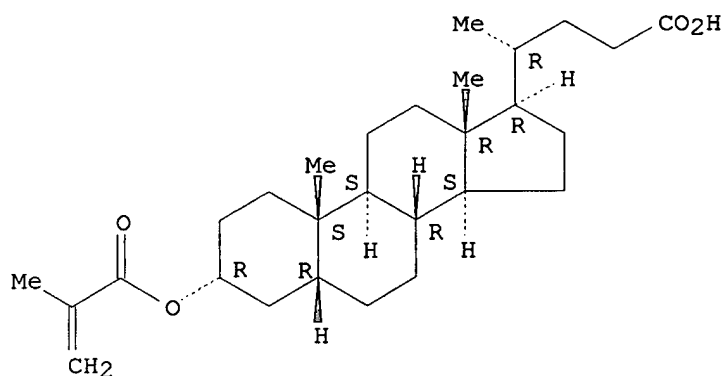
AB Compds. I [R1 = H, (un)substituted straight or branched alkyl, cycloalkyl, alkoxyalkyl, cycloalkoxyalkyl; R2 = H, Me] are useful as monomers for the prepn. of photoresists. Thus, 5.beta.-cholan-24-oic acid is acylated with methacryloyl chloride and esterified by the sequential treatment of SOCl2 in THF followed by addn. of tert-butanol to give I (R1 = CMe3, R2 = Me). I (R1 = CMe3, R2 = Me) is copolymd. with I (R1 = H, R2 = Me) and the

copolymer II (R3, R4 = H, Me; x, y = 0.05 - 0.9 mol fraction) is then treated with triphenylsulfonium triflate in Me 3-me xypropionate to make

the photoresist.

IT 232944-22-8P, 5.beta.-Cholan-24-oic acid 3-methacrylate
 232944-27-3P, 5.beta.-Cholan-24-oic acid 3-methacrylate tert-butyl
 5.beta.-cholan-24-oate 3-methacrylate copolymer 232944-28-4P,
 5.beta.-Cholan-24-oic acid 3-methacrylate tetrahydropyranyl
 5.beta.-cholan-24-oate 3-methacrylate copolymer 232944-29-5P,
 5.beta.-Cholan-24-oic acid 3-methacrylate tetrahydropyranyl
 5.beta.-cholan-24-oate 3-methacrylate 2-hydroxyethyl methacrylate
 copolymer 232944-30-8P, 5.beta.-Cholan-24-oic acid
 3-methacrylate 2-ethoxyethyl 5.beta.-cholan-24-oate 3-methacrylate
 2-hydroxyethyl methacrylate copolymer
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of new steroidal monomers and polymers for the prepn. of
 photoresists)
 RN 232944-22-8 CAPLUS
 CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 (3.alpha.,5.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

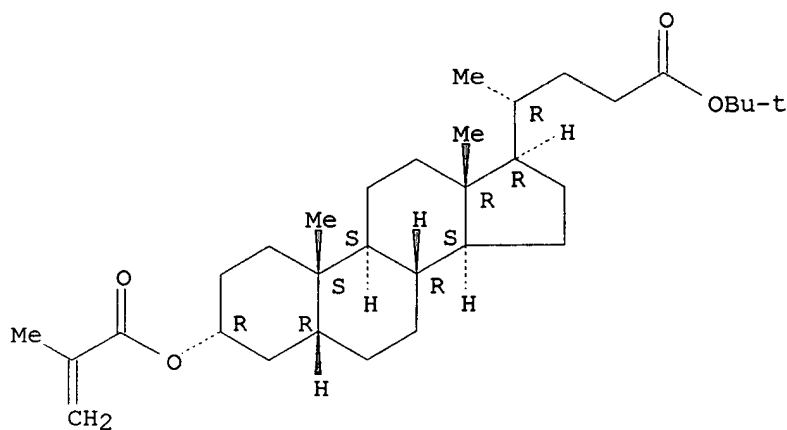


RN 232944-27-3 CAPLUS
 CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 (3.alpha.,5.beta.)-, polymer with 1,1-dimethylethyl (3.alpha.,5.beta.)-3-
 [(2-methyl-1-oxo-2-propenyl)oxy]cholan-24-oate (9CI) (CA INDEX NAME)

CM 1

CRN 232944-23-9
 CMF C32 H52 O4

Absolute stereochemistry.

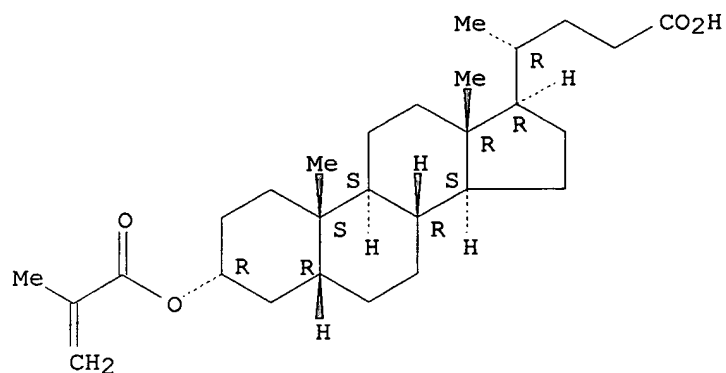


CM 2

CRN 232944-22-8

CMF C28 H44 O4

Absolute stereochemistry.



RN 232944-28-4 CAPLUS

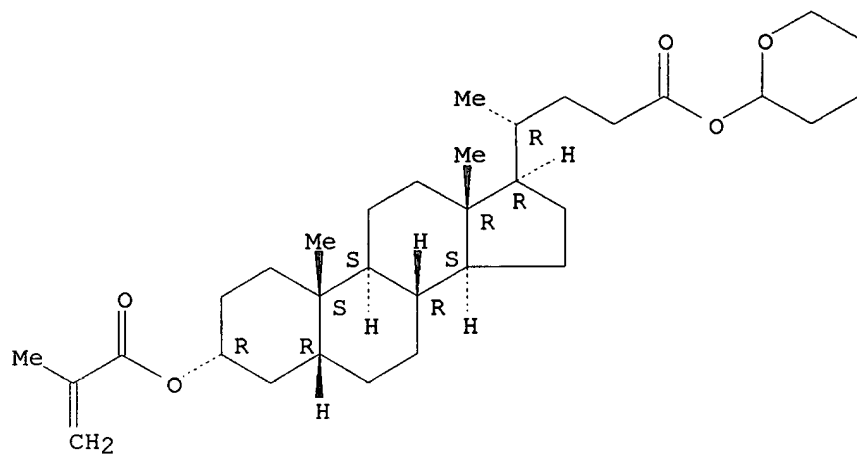
CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.)-, polymer with tetrahydro-2H-pyran-2-yl (3.alpha.,5.beta.)-3-[(2-methyl-1-oxo-2-propenyl)oxy]cholan-24-oate (9CI) (CA INDEX NAME)

CM 1

CRN 232944-24-0

CMF C33 H52 O5

Absolute stereochemistry.

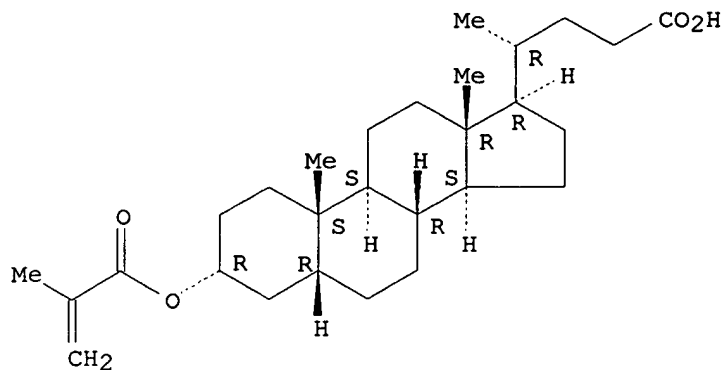


CM 2

CRN 232944-22-8

CMF C28 H44 O4

Absolute stereochemistry.

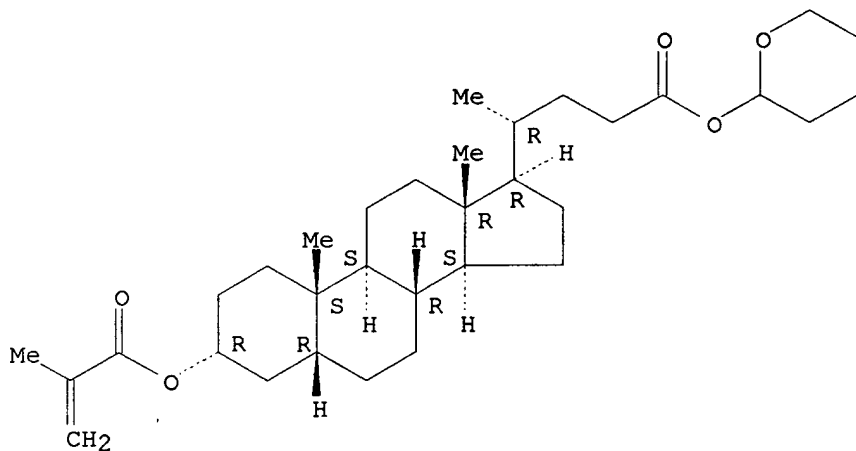


RN 232944-29-5 CAPLUS
 CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 (3.alpha.,5.beta.)-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate
 and
 tetrahydro-2H-pyran-2-yl (3.alpha.,5.beta.)-3-[(2-methyl-1-oxo-2-
 propenyl)oxy]cholan-24-oate (9CI) (CA INDEX NAME)

CM 1

CRN 232944-24-0
 CMF C33 H52 O5

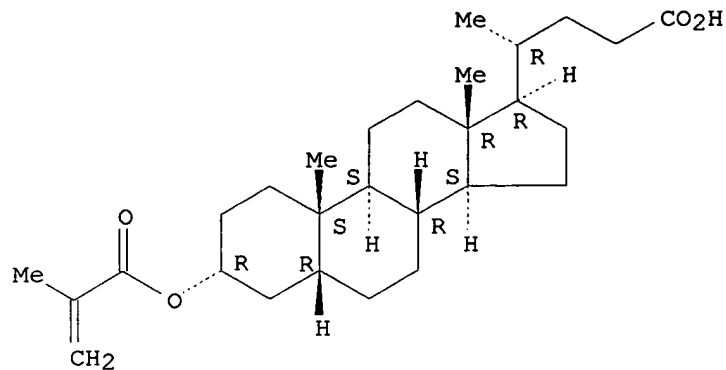
Absolute stereochemistry.



CM 2

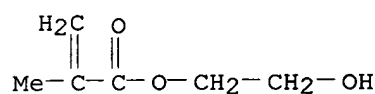
CRN 232944-22-8
 CMF C28 H44 O4

Absolute stereochemistry.



CM 3

CRN 868-77-9
CMF C6 H10 O3

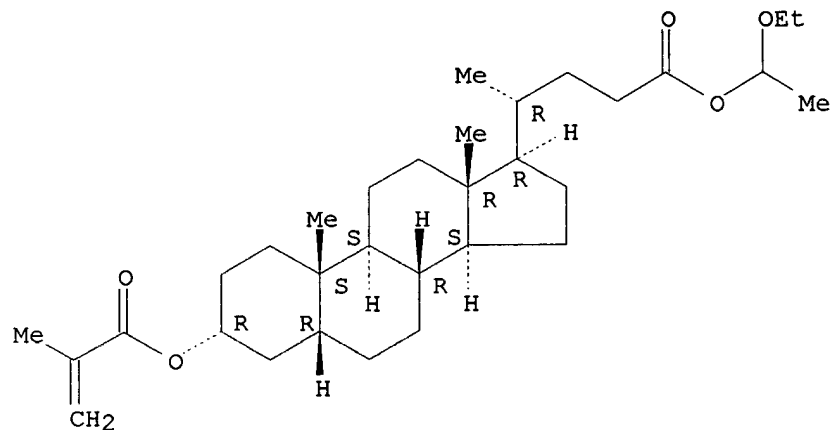


RN 232944-30-8 CAPLUS
CN Cholan-24-oic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.)-, polymer with 1-ethoxyethyl (3.alpha.,5.beta.)-3-[(2-methyl-1-oxo-2-propenyl)oxy]cholan-24-oate and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 232944-25-1
CMF C32 H52 O5

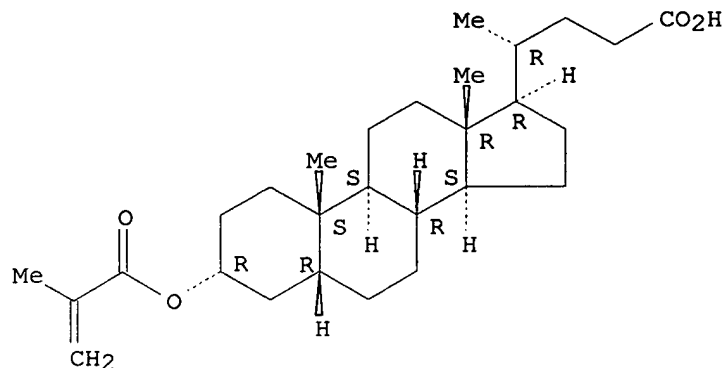
Absolute stereochemistry.



CM 2

CRN 232944-22-8
CMF C28 H44 O4

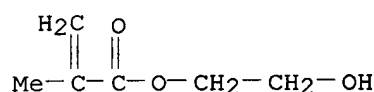
Absolute stereochemistry.



CM 3

CRN 868-77-9

CMF C6 H10 O3



L5 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:467455 CAPLUS

DOCUMENT NUMBER: 131:243955

TITLE: Design and synthesis of new alicyclic acrylate polymer

AUTHOR(S): with androstane moiety for 193 nm resist
Aoai, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro;
Kawabe, Yasumasa; Nakao, Hajime; Yagihara, Morio
CORPORATE SOURCE: Yoshida-Minami Research Lab., Fuji Photo Film Co.,
Ltd., Shizuoka, 421-03, Japan

SOURCE: J. Photopolym. Sci. Technol. (1999), 12(3), 477-486
CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Syntheses of new alicyclic (meth)acrylate polymers contg. androstane moieties, esp. cholic acid derivs., and their characteristics were investigated for 193 nm single layer resist. Among the derivs., a deoxycholic acid structure was selected from the viewpoints of its ability

for dry-etching resistance, adhesion on a substrate, and soly. for resist solvents. A work of adhesion, Ohnishi and ring parameters were used as measures for the adhesion and the dry-etching resistance in this study. In the syntheses of the polymers, the use of 3-.beta.-methacryloyloxy-deoxycholic acid, which is the inverse configuration against the original 3-.alpha.-structure, was effective as a monomer, because the steric hindrance at 3-.alpha.-position degraded its polymn. ability. The polymers partially protected by acid labile groups showed a satisfactory adhesion, which was probably due to the hydrophilic hydroxyl group at the 12-position and the carboxyl group linked at the 17-position, and a good dry-etching resistance. On the lithog. imaging with these polymers, the redn. of the side reaction on the acid decompn. and also the control of the flexibility on the polymers largely affected their performance. The adjustment of the Tg values of the polymers by the co-polymn. and the change of the polymer backbone from the methacrylate to acrylate structure

performed well on imaging under 193 nm exposure.

IT 244178-44-7P, 3-.beta.-(Methacryloyloxy)deoxycholic acid

homopolymer ethoxymethyl ester

RL: PEP (Physical, engineering or chemical process); RP (Properties);

SPN

(Synthetic preparation); PREP (Preparation); PROC (Process)

(design and synthesis of new alicyclic acrylate polymer with androstane

moiety for 193 nm resist)

RN 244178-44-7 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.,12.alpha.)-, homopolymer, ethoxymethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 10171-38-7

CMF C3 H8 O2

$\text{H}_3\text{C}-\text{CH}_2-\text{O}-\text{CH}_2-\text{OH}$

CM 2

CRN 244176-34-9

CMF (C28 H44 O5)x

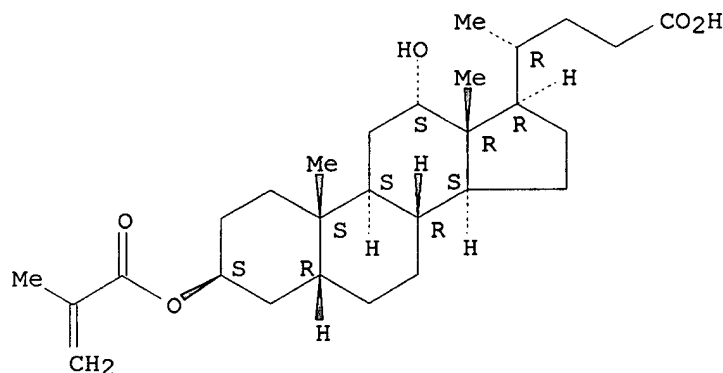
CCI PMS

CM 3

CRN 244176-33-8

CMF C28 H44 O5

Absolute stereochemistry.



IT 244176-34-9P

RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(design and synthesis of new alicyclic acrylate polymer with androstane

moiety for 193 nm resist)

RN 244176-34-9 CAPLUS

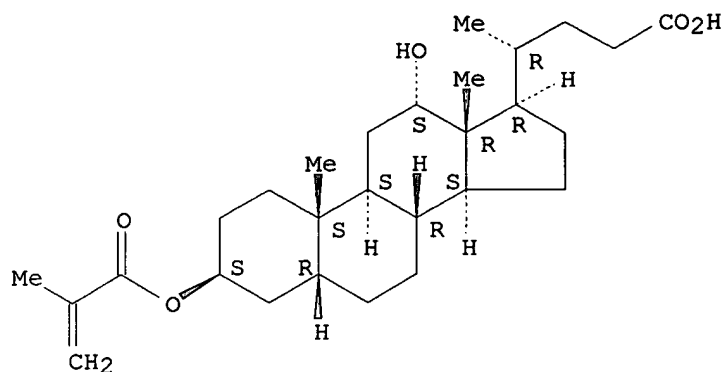
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.beta.,5.beta.,12.alpha.)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 244176-33-8

CMF C28 H44 O5

Absolute stereochemistry.



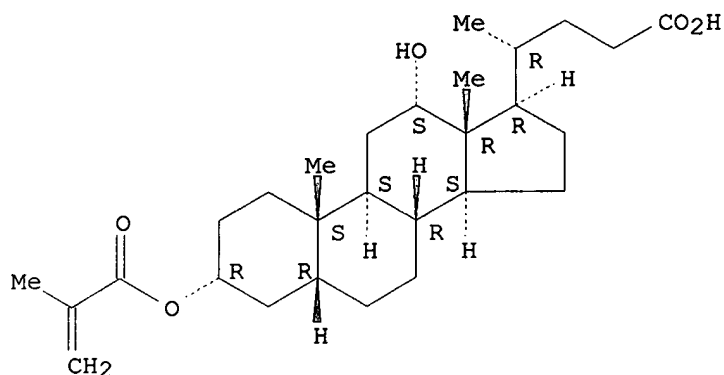
IT **212580-18-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (design and synthesis of new alicyclic acrylate polymer with
 androstane
 moiety for 193 nm resist)

RN 212580-18-2 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 (3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



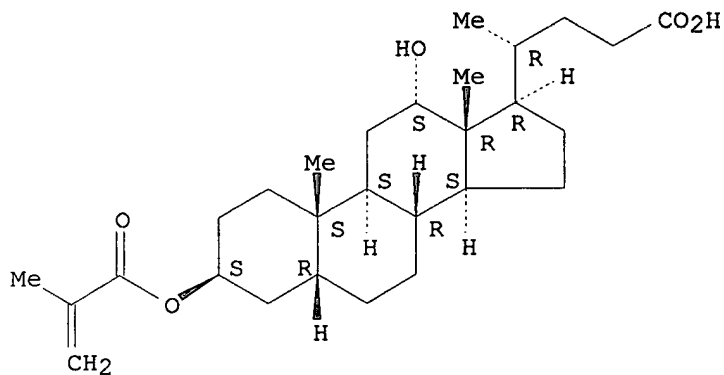
IT **244176-33-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (monomer; design and synthesis of new alicyclic acrylate polymer with
 androstane moiety for 193 nm resist)

RN 244176-33-8 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 (3.beta.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

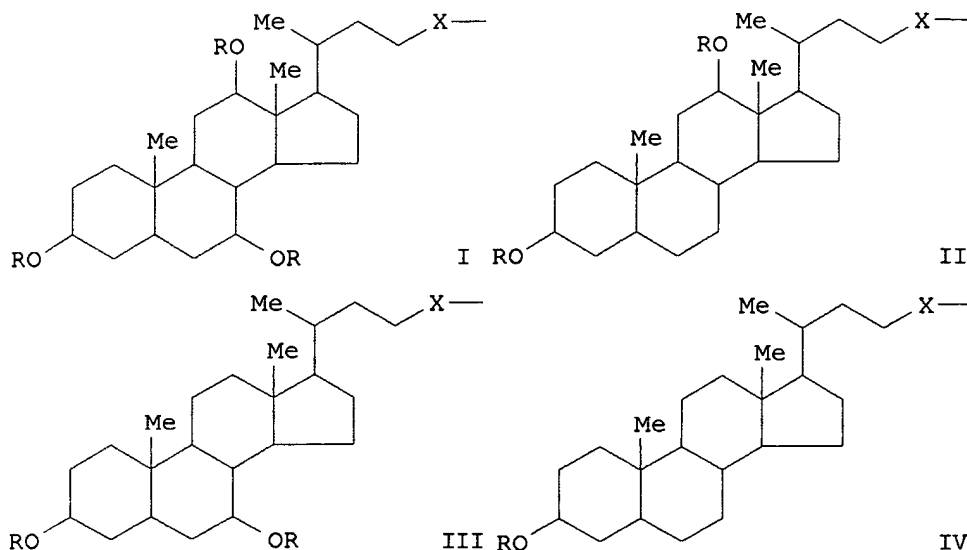
Absolute stereochemistry.



L5 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1999:260860 CAPLUS
 DOCUMENT NUMBER: 130:345049
 TITLE: Positive-working photosensitive composition
 INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11109628	A2	19990423	JP 1997-267024	19970930

GI



AB The title compn. contains a compd. generating acid upon active ray or radiation irradiation and a resin having a selected group from polycyclic, alicyclic groups I-IV [R = H, (substituted) straight-chain or branched alkyl, cycloalkyl, alkenyl, acyl; X = single bond, divalent alkylene which may have ether, ester, amide, urethane or ureido group, alkenylene, cycloalkylene] and a group which is decomposed by the action of acid to increase the solubility in alkali developing solutions. The compn. shows high photosensitivity in the region of 250 nm, esp. 220 nm and provides a high resolution pattern with good dry etch resistance and adhesion to substrate.

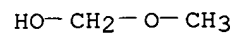
IT **224033-93-6P 224033-94-7P 224033-95-8P**
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photoresist compn. containing acid generating agent and resin having cholic acid ester group and acid decomposable group)
 RN 224033-93-6 CAPLUS
 CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with (3.alpha.,5.beta.,7.alpha.,12.alpha.)-cholane-3,7,12,24-tetrol 24-(2-methyl-2-propenoate), methoxymethyl

ester (9CI) (CA INDEX NAME)

CM 1

CRN 4461-52-3

CMF C2 H6 O2



CM 2

CRN 223930-06-1

CMF (C28 H46 O5 . C28 H44 O5)x

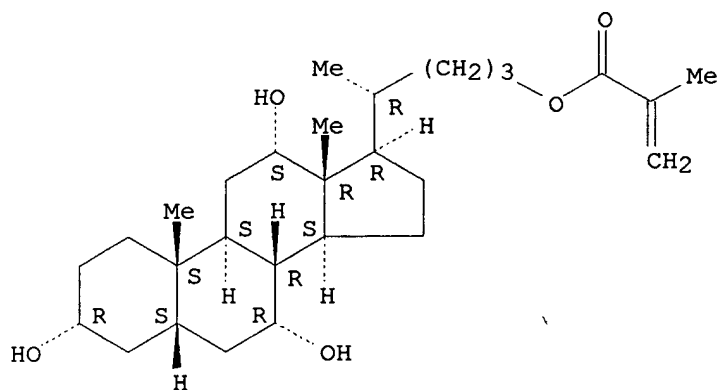
CCI PMS

CM 3

CRN 223929-89-3

CMF C28 H46 O5

Absolute stereochemistry.

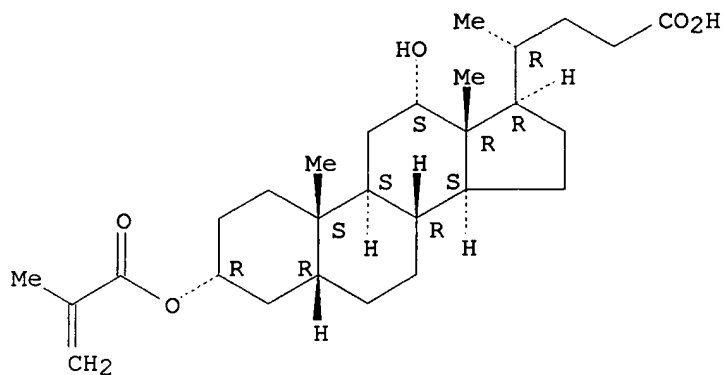


CM 4

CRN 212580-18-2

CMF C28 H44 O5

Absolute stereochemistry.



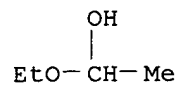
RN 224033-94-7 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,

(3.alpha.,5.beta.,12.alpha.)-, polymer with
 (3.alpha.,5.beta.,7.alpha.,12.
 alpha.)-cholane-3,7,12,24-tetrol 24-(2-methyl-2-propenoate),
 1-ethoxyethyl
 ester (9CI) (CA INDEX NAME)

CM 1

CRN 7518-70-9
 CMF C4 H10 O2



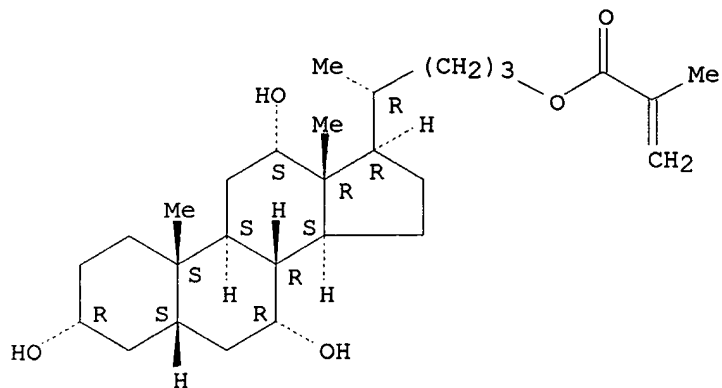
CM 2

CRN 223930-06-1
 CMF (C28 H46 O5 . C28 H44 O5)x
 CCI PMS

CM 3

CRN 223929-89-3
 CMF C28 H46 O5

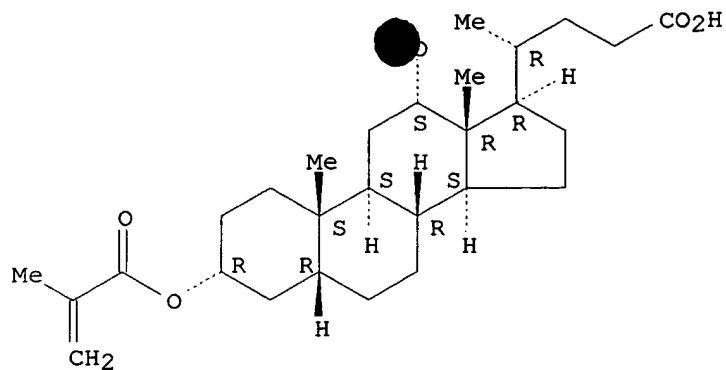
Absolute stereochemistry.



CM 4

CRN 212580-18-2
 CMF C28 H44 O5

Absolute stereochemistry.



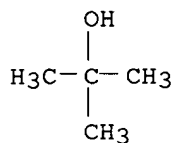
RN 224033-95-8 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with (3.alpha.,5.beta.,7.alpha.,12.alpha.)-cholane-3,7,12,24-tetrol 24-(2-methyl-2-propenoate), 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 75-65-0

CMF C4 H10 O



CM 2

CRN 223930-06-1

CMF (C28 H46 O5 . C28 H44 O5)x

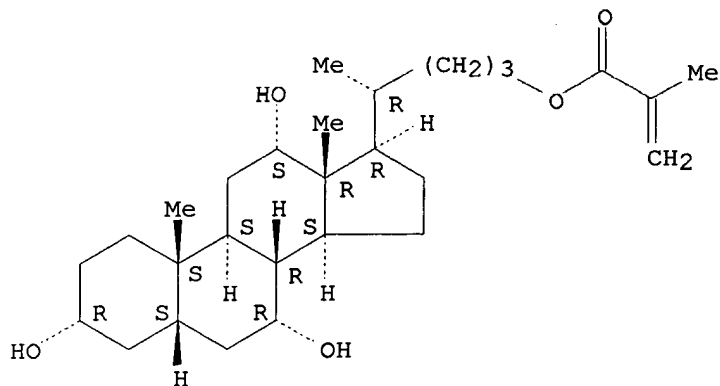
CCI PMS

CM 3

CRN 223929-89-3

CMF C28 H46 O5

Absolute stereochemistry.



CMF C28 H44 O5

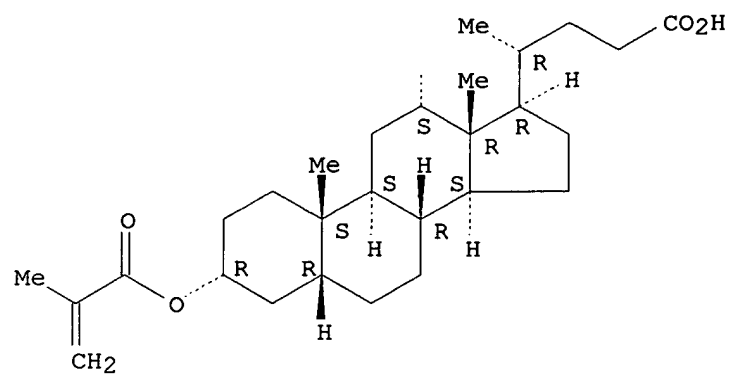
The diagram shows a steroid nucleus with four fused rings (A, B, C, D). Substituents include a methyl group at C-10, a hydroxyl group at C-13, and a side chain at C-14. The side chain consists of a methyl group at C-15, a methylene group at C-16, and a carboxylic acid group at C-17. Stereochemistry is indicated by wedges and dashes at various positions: C-13 (OH, dash), C-14 (Me, wedge), C-15 (Me, wedge), C-16 (H, dash), C-17 (CO₂H, dash), C-18 (Me, wedge), C-19 (Me, wedge), C-20 (H, dash), C-21 (H, dash), C-22 (H, dash), C-23 (H, dash), C-24 (H, dash), C-25 (H, dash), C-26 (H, dash), C-27 (H, dash), C-28 (H, dash), C-29 (H, dash), C-30 (H, dash).

CMF C28 H46 O5

Chemical structure of a steroid derivative. The structure shows a four-ring steroid nucleus with various substituents and stereochemistry indicated by 'S' (solid wedge) and 'H' (dashed wedge) labels. The side chain at C13 includes a methyl group (Me), a propyl group ((CH₂)₃), and a terminal vinyl ketone group (CH=CH-C(=O)O-). Other substituents include a hydroxyl group (HO) at C3 and a methyl group (Me) at C10.

CMF C28 H44 O5

Absolute stereochemistry.



=> d 15 15-20 ibib abs hitstr

L5 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1998:760085 CAPLUS
 DOCUMENT NUMBER: 130:31165
 TITLE: Positive resist composition
 INVENTOR(S): Aoi, Toshiaki; Kondo, Shunichi; Sato, Kenichiro;
 Yamaoka, Tsuguo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 84 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 878738	A2	19981118	EP 1998-108549	19980511
EP 878738	A3	19990623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10312060	A2	19981124	JP 1997-120919	19970512
JP 11160877	A2	19990618	JP 1998-268267	19980922
PRIORITY APPLN. INFO.:			JP 1997-120919	19970512
			JP 1997-260399	19970925

AB Disclosed is a pos. resist compn. which ensures, on use of an exposure light source of 220 nm or less, high sensitivity, good resolu., sufficiently high resistance against dry etching, satisfactory adhesion to the substrate, and superior developability even with a developer conventionally used for resists (for example, a 2.38% aq. tetramethylammonium hydroxide soln.), the pos. resist compn. comprising a compd. generating an acid on irradiation of an active light ray or radiation, a resin having a polycyclic-type alicyclic group and a carboxyl group, and a compd. having at least two groups having the structure R1R2C=CR3Z- (R1-3 = H, alkyl, or cycloalkyl with the proviso that two of R1-3 may be combined to form a ring having 3-8 carbon or hetero atoms; Z = O, S, SO2, or NH).

IT **216308-53-1P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (prepn. and use in pos. photoresists contg. vinyl compds.)

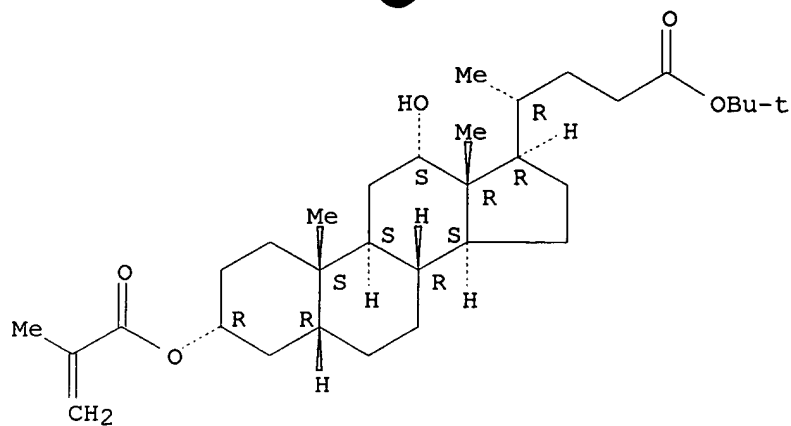
RN 216308-53-1 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with (3.alpha.,5.beta.,12.alpha.)-1,1-dimethylethyl 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]cholan-24-oate (9CI) (CA INDEX NAME)

CM 1

CRN 216308-52-0
 CMF C32 H52 O5

Absolute stereochemistry.

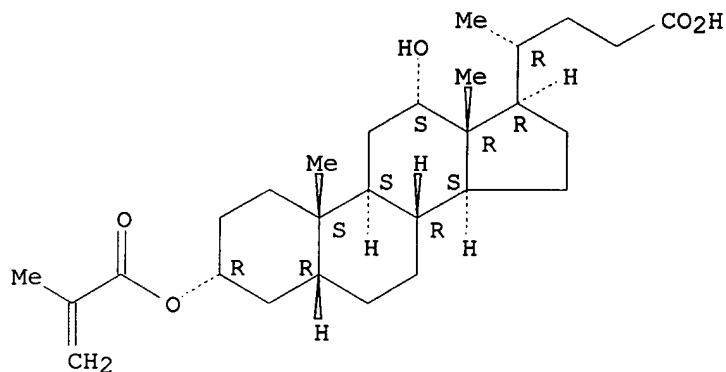


CM 2

CRN 212580-18-2

CMF C28 H44 O5

Absolute stereochemistry.



L5 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:744916 CAPLUS
DOCUMENT NUMBER: 130:31164
TITLE: Positive photosensitive composition
INVENTOR(S): Aoi, Toshiaki; Sato, Kenichiro; Yagihara, Morio
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 877293	A2	19981111	EP 1998-108461	19980508
EP 877293	A3	19990623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10307397	A2	19981117	JP 1997-119772	19970509
JP 10307398	A2	19981117	JP 1997-119773	19970509
PRIORITY APPLN. INFO.:			JP 1997-119772	19970509
			JP 1997-119773	19970509

AB Disclosed is a pos. photosensitive compn. capable of giving good sensitivity, resol. and resist patterns and exhibiting sufficiently high dry etching resistance on use of an exposure light source of 250 nm or less, particularly 220 nm or less, and comprising (A) a compd. generating an acid on irradiation of an active light ray or radiation and (B) a resin having (i) at least one polycyclic-type alicyclic group, (ii) at least

one

ester group which decomposes by the action of an acid and increases the soly. in an alkali developer, and (iii) at least one acetal group which decomposes by the action of an acid and increases the soly. in an alkali developer or comprises (A) a compd. generating an acid on irradiation of an active light ray or radiation, (B) a resin having a polycyclic-type alicyclic group and an ester group which decomposes by the action of an

acid

and increases the soly. in an alkali developer, and (C) a resin having a polycyclic-type alicyclic group and an acetal group which decomposes by the action of an acid and increases the soly. in an alkali developer.

IT 216098-45-2 216220-04-1 216220-07-4

RL: TEM (Technical or engineered material use); USES (Uses)

(pos. photoresists contg. photosensitive acid generators and)

RN 216098-45-2 CAPLUS

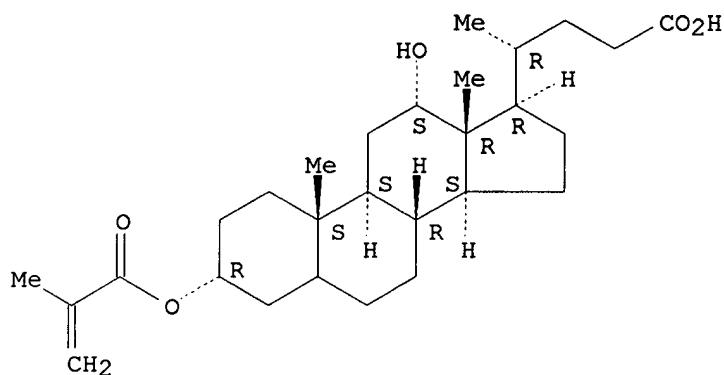
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,12.alpha.)-, polymer with 1-ethyl-1-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 213469-87-5

CMF C28 H44 O5

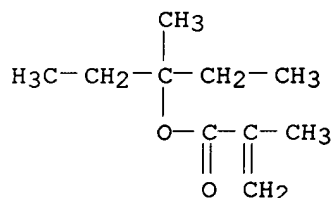
Absolute stereochemistry.



CM 2

CRN 63715-93-5

CMF C10 H18 O2



RN 216220-04-1 CAPLUS

CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,12.alpha.)-, polymer with 1-[2-(acetyloxy)ethoxy]ethyl methyl

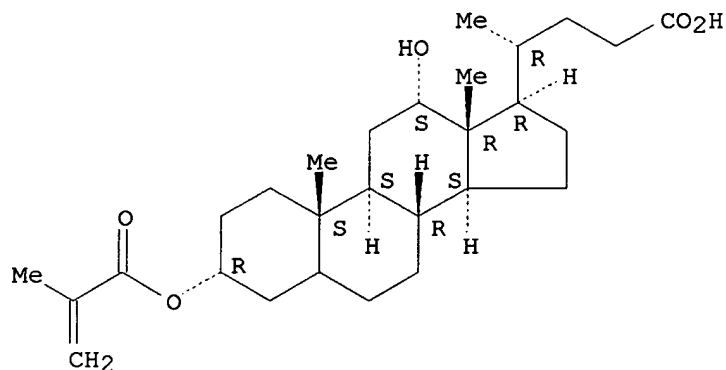
2-methyl-2-butenedioate and 1-ethyl-1-methylpropyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 213469-87-5

CMF C28 H44 O5

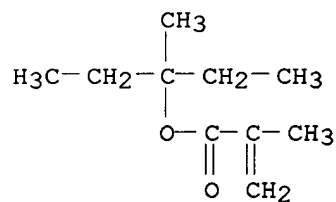
Absolute stereochemistry.



CM 2

CRN 63715-93-5

CMF C10 H18 O2



CM 3

CRN 216220-03-0

CMF C12 H18 O7

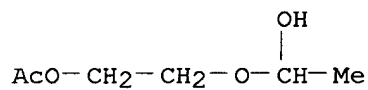
CCI IDS

CDES 8:ID

CM 4

CRN 216220-02-9

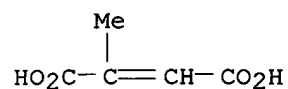
CMF C6 H12 O4



CM 5

CRN 7407-59-2

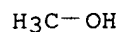
CMF C5 H6 O4



CM 6

CRN 67-56-1

CMF C H4 O



RN 216220-07-4 CAPLUS

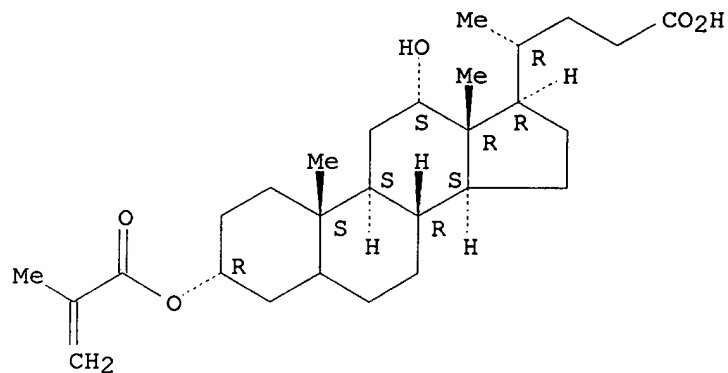
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,12.alpha.)-, polymer with 1-[2-(acetyloxy)ethoxy]ethyl methyl 2-methyl-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 213469-87-5

CMF C28 H44 O5

Absolute stereochemistry.



CM 2

CRN 216220-03-0

CMF C12 H18 O7

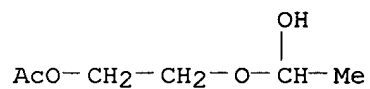
CCI IDS

CDES 8:ID

CM 3

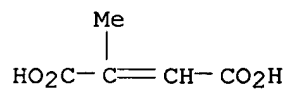
CRN 216220-02-9

CMF C6 H12 O4



CM 4

CRN 7407-59-2



CM 5

CRN 67-56-1

CMF C H4 O

H₃C-OH

L5 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:580254 CAPLUS

DOCUMENT NUMBER: 129:267914

TITLE: Positive-working photosensitive composition with high sensitivity toward far ultraviolet ray

INVENTOR(S): Aogo, Toshiaki; Tan, Shiro; Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

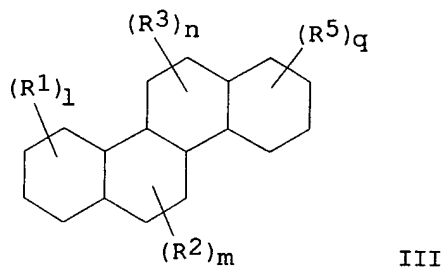
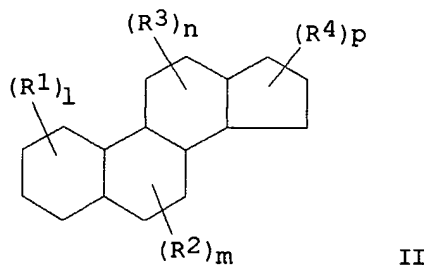
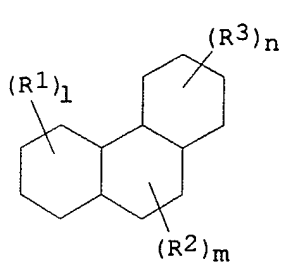
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10232495	A2	19980902	JP 1997-33958	19970218

GI



AB The title compn. contains a compd. generating acid upon active ray or radiation irradiation and a resin having a monovalent polycyclic

alicyclic group of I, II, or III [R1-5 = alkyl, cycloalkyl, alkenyl, alkynyl (these groups may be substituted), halo, CN, 6OR7, R8CO2R9, R10CONR11R12, R13OR14; R7, R9 = H, alkyl, cycloalkyl, alkenyl (these groups may be substituted), group that is decompd. by the action of acid to increase the soly. in alk. developing solns.; R11, R12, R14 = H, alkyl, cycloalkyl, alkenyl (these groups may be substituted), R11 and R12 may link to form a ring; R6, R8, R10, R13 = single bond, alkylene, alkenylene, cycloalkylene (these groups may be substituted); l, m, n, p, q = 0-5, when l, m, n, p, q .gtoreq. 2, the plural groups in each R1-5 may be different, when 2 groups in each R1-5 are substituted at the same C atom, they may represent carbonyl or thiocarbonyl group, when 2 groups in each R1-5 are substituted at adjacent C atoms, they may link to form double bond between these C atoms, when .gtoreq.2 groups in each R1-5 are substituted, they may link to form a ring; I, II, and III may link to the resin at any position in the polycyclic structures] and a group that is decompd. by the action of acid to increase the soly. in alk. developing solns. The compn. shows high sensitivity to UV ray of .ltoreq.250 nm, esp. .ltoreq.220 nm and provides high resoln. patterns with good profile and dry etch resistance. The compn. gives fine patterns and is useful of manuf. of semiconductor devices.

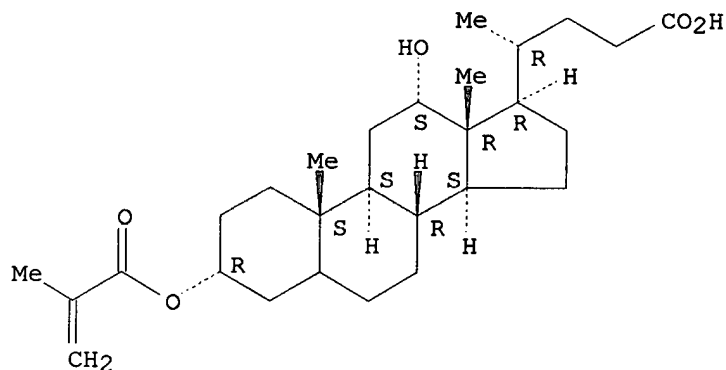
IT 213469-88-6P 213469-93-3P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoresist compn. contg. acid generator and polymer having alicyclic group)
 RN 213469-88-6 CAPLUS
 CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,12.alpha.)-, polymer with 1,1-dimethyl-2-propenyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

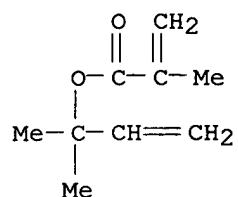
CRN 213469-87-5
 CMF C28 H44 O5

Absolute stereochemistry.



CM 2

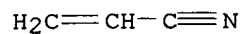
CRN 173947-55-2
 CMF C9 H14 O2



CM 3

CRN 107-13-1

CMF C3 H3 N



RN 213469-93-3 CAPLUS

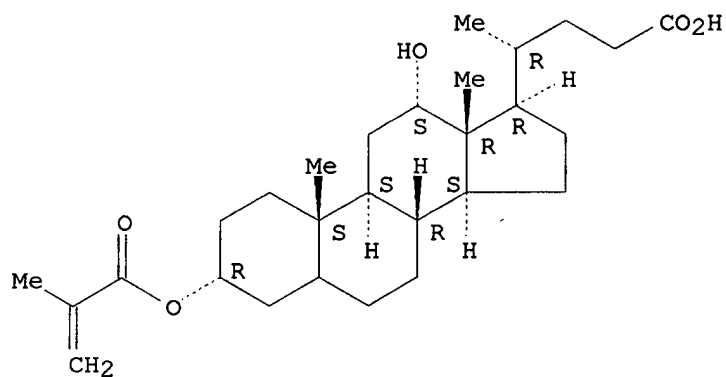
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,12.alpha.)-, polymer with 2-chloro-1,1-dimethylethyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 213469-87-5

CMF C28 H44 O5

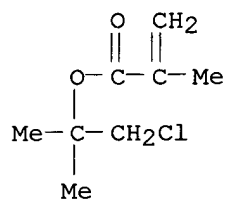
Absolute stereochemistry.



CM 2

CRN 212579-91-4

CMF C8 H13 Cl O2



CM 3

CRN 107-13-1
CMF C3 H3 N

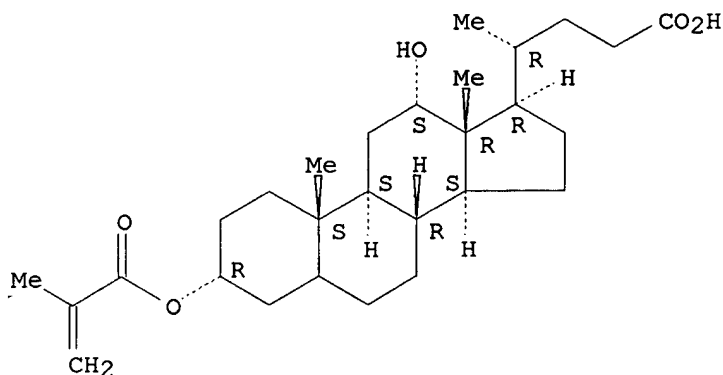


IT **213470-20-3P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation)
(prepn. and polymn. of)
RN 213470-20-3 CAPLUS
CN Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
homopolymer, (3.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

CM 1

CRN 213469-87-5
CMF C28 H44 O5

Absolute stereochemistry.



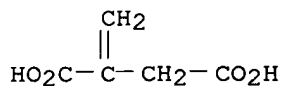
L5 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:545694 CAPLUS
DOCUMENT NUMBER: 129:223253
TITLE: Positive-working photoresist composition
INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10221852	A2	19980821	JP 1997-24011	19970206

AB The title compn. comprises a resin having .gtoreq.1 repeating unit contg. groups that are decompd. upon active ray or irradiation to generate acid, .gtoreq.1 alicyclic group-contg. repeating unit, and .gtoreq.1 repeating unit contg. groups that are decompd. by the action of acid to increase the soly. in alk. developing solns. The compn. shows high sensitivity toward light of wavelength .ltoreq.250 nm, esp. .ltoreq.220 nm, and high dry etch resistance and provides high resolu. resist patterns with good profile independent of the elapse of time from exposure to post-bake.

IT **212580-19-3P 212580-21-7P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material)

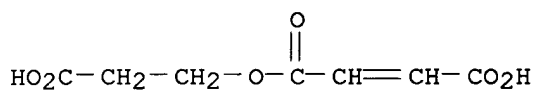
CRN 97-65-4
CMF C5 H6 O4



RN	212580-21-7	CAPLUS
CN	Cholan-24-oic acid, 12-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,12.alpha.)-, polymer with (2-carboxyethyl) hydrogen 2-butenedioate, 1-ethoxyethyl 2-methyl-2-propenoate and 1-phenyl-1,2-propanedione 2-[O-[(4-ethenylphenyl)sulfonyl]oxime] (9CI) (CA INDEX NAME)	

CM 1

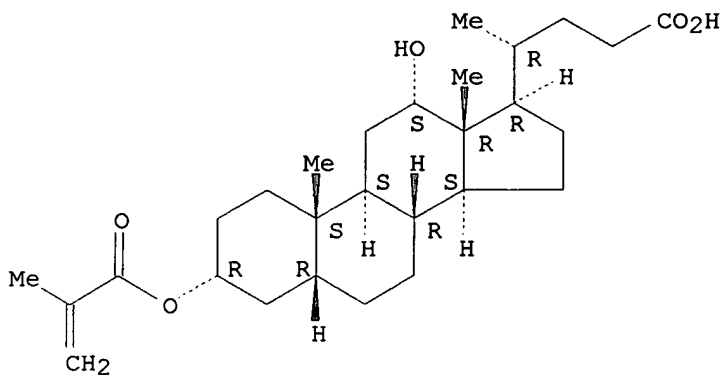
CRN 212580-20-6
CMF C7 H8 O6



CM 2

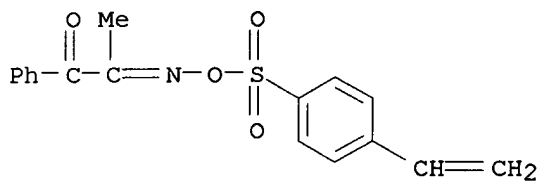
CRN 212580-18-2
CMF C28 H44 O5

Absolute stereochemistry.

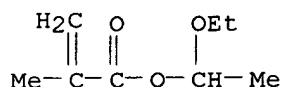


CM 3

CRN 143451-66-5
CMF C17 H15 N O4 S

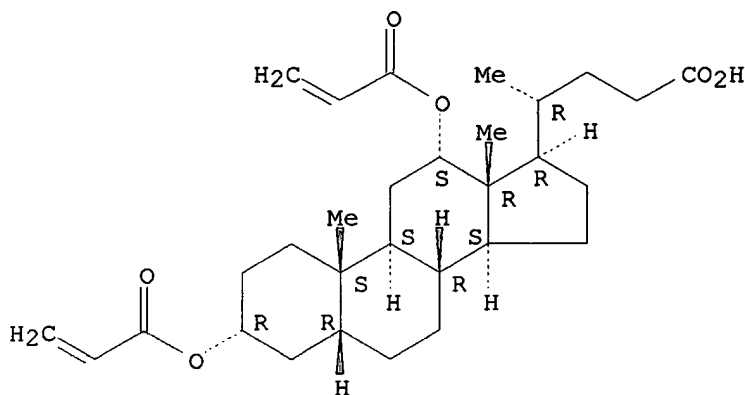


CRN 51920-52-6
CMF C8 H14 O3



L5 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1997:707390 CAPLUS
 DOCUMENT NUMBER: 127:331426
 TITLE: Hydrophobic effect on 1,3-dipolar cycloaddition reactions
 AUTHOR(S): Pandey, Pramod S.; Pandey, Inder K.
 CORPORATE SOURCE: Department of Chemistry, Indian Institute of Technology, New Delhi, 110 016, India
 SOURCE: Tetrahedron Lett. (1997), 38(41), 7237-7240
 CODEN: TELEAY; ISSN: 0040-4039
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 127:331426
 AB The rate and selectivity of 1,3-dipolar cycloaddn. reactions of C,N-diphenylnitrone are influenced by the hydrophobic effect.
 IT 198008-04-7
 RL: RCT (Reactant)
 (hydrophobic effect on 1,3-dipolar cycloaddn. reactions of nitrone)
 RN 198008-04-7 CAPLUS
 CN Cholan-24-oic acid, 3,12-bis[(1-oxo-2-propenyl)oxy]-, sodium salt, (3.alpha.,5.beta.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



© Na

L5 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1992:408520 CAPLUS
 DOCUMENT NUMBER: 117:8520
 TITLE: Radically polymerizable cholic acid derivatives in monolayers, micelles, and vesicles
 AUTHOR(S): Ahlheim, Markus; Hallensleben, Manfred L.
 CORPORATE SOURCE: Inst. Makromol. Chem., Univ. Hannover, Hannover,

SOURCE: D-3000, Germany
Makromol. Chem. (1992), 193(3), 97
CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal
LANGUAGE: German

AB The synthesis of radically polymerizable derivs. of cholic acid contg. a methacrylic group directly attached to C-3 or via a C11 cinnamic ester spacer is described. The monomers form monolayers, vesicles, and micelles. In vesicles and in micelles the monomers undergo neither photodimerization via the cinnamoyl group nor do they polymerize, but they photodimerize in an amorphous film and polymerize in isotropic soln.

IT 141788-86-5P 141879-00-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)

RN 141788-86-5 CAPLUS

CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-, homopolymer (9CI) (CA INDEX

NAME)

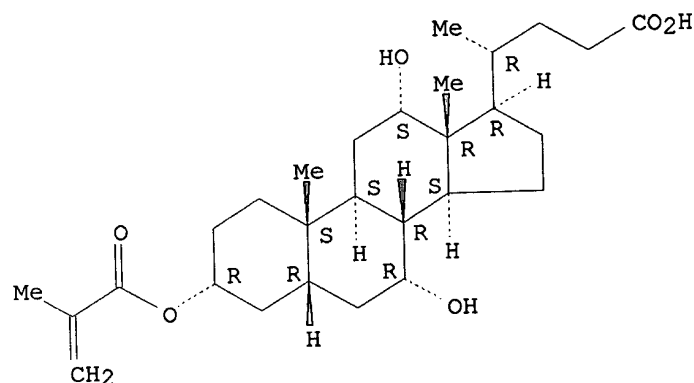
CM 1

CRN 141788-85-4

CMF C28 H44 O6

CDES 4:3A,5B,7A,12A.CHOL

Absolute stereochemistry.



RN 141879-00-7 CAPLUS
CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, monosodium salt, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-, homopolymer (9CI)
(CA INDEX NAME)

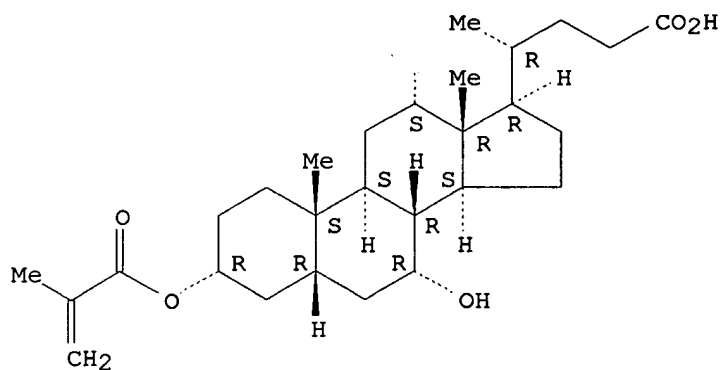
CM 1

CRN 141878-99-1

CMF C28 H44 O6 . Na

CDES 4:3A,5B,7A,12A.CHOL

Absolute stereochemistry.



● Na

IT **141788-85-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and polymn. of)

RN 141788-85-4 CAPLUS

CN Cholan-24-oic acid, 7,12-dihydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
(3.alpha.,5.beta.,7.alpha.,12.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

